THE *OPUS SECTILE*
IN THE EUFRASIUS CATHEDRAL
AT POREČ

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The cathedral complex known as the Eufrasiana was built in its final form in the mid-sixth century in Poreč (Parentium, Parenzo), a small coastal city which is today in Croatia, Yugoslavia. The well-preserved ensemble of buildings consists of a basilica, an atrium, a baptistery, an episcopal palace, and a *cella trichora*.[1] The surviving decorative program includes *opus sectile*, marble architectural sculpture and furnishings, stuccoes, and the well-known wall and floor mosaics. An inscription and donor portrait in the apse of the basilica credit Bishop Eufrasius with the foundation.[2] Historical evidence dating Eufrasius to the middle of the sixth century—he is named by Pope Pelagius I in a letter

of 559—is confirmed by his architectural and decorative contributions, which find very close counterparts in the foundations attributed to Archbishop Maximian (d. 556) at Ravenna.[3]

Parentium was by no means a great cultural center of late antiquity. Quite to the contrary, it was a small and, for the upper Adriatic littoral, rather ordinary coastal city. Its episcopal complex, however, is one of a handful of Justinianic monuments to survive essentially intact, and thus it holds a unique position in the art and architecture of the Early Christian era.

This paper concentrates on the extraordinary but little-known *opus sectile*, the marble and glass incrustation that revets the apse wall in the basilica. It consists of twenty-one individual main panels and, above them, a continuous decorative frieze (the upper register; Fig. 25). In addition, the floor of the apse is inlaid with variously cut pieces of marble (Figs. 2, 3, 26). Marble sheathing was a regular feature of well-funded Early Christian churches;[4] however, very little actual *opus sectile*, a particularly precious type of paneling in which marble slabs cut in a variety of shapes form designs, has survived from that period. The Poreč *opus sectile* is an especially fortunate exception, since it has not been systematically restored.[5]

[1] For the past forty years the standard reference for the Eufrasiana has been B. Molajoli, *La basilica Eufrasiana di Parenzo*, 2nd ed. (Padua, 1943). For additional literature—mostly excavation reports and archeological studies—see Ann Terry, *The Architecture and Architectural Sculpture of the Sixth-Century Eufrasius Cathedral Complex at Poreč*, Diss. (University of Illinois at Urbana-Champaign, 1984) (hereafter Terry, *Eufrasius Cathedral*), 480 note 87 (pre-World War II publications) and 481 note 102 (post-World War II publications). Additional literature (accounts in early travel journals and guides and professional studies) is cited on 479 note 85. For a general summary of the major literature on the Eufrasiana, see A. Šonje, "Arheološka istraživanja na području Eufrazijeve bazilike u Poreču," *Jadranski Zbornik* 7 (1969), 249–51.

[2] The most recent discussion of the mosaics, which includes a bibliography, is A. Šonje, "I mosaici parietali del complesso architettonico della basilica Eufrasiana a Parenzo," *Atti del centro di ricerche storiche—Rovigno* 12 (1982–83), 65–138.

[3] For a discussion of dating, see Terry, *Eufrasius Cathedral*, 150–59, with bibliography.

[4] For a general study, see P. Asimakopoulou-Atzaka, *He technike Opus Sectile sten entoichia diakosmese. Symbole ste melete tes technikes apo ton proto mechri ton hebdomo m. Ch. aiona me base ta mnemeia kai ta keimena*, Byzantina Mnemeia 4 (Thessaloniki, 1980); see also S. Aurigemma, "Sectile, Opus," in *EAA* 7 (1966), 145–51 with bibliography.

[5] There is no record of any significant restoration of the *opus sectile* at the Eufrasiana. Careful observation indicates that it has survived intact and without any kind of systematic restoration. I offer several pointers to the authenticity of the *opus sectile*. (1)

The *opus sectile* at Poreč has not been studied previously; therefore, the first section of this paper consists of a catalogue with descriptions of the individual panels. A second part examines this new material in light of the two other major preserved examples from the sixth century, S. Vitale (546–48) in Ravenna and H. Sophia (532–37) in Istanbul.[6] Much work remains to be done on Early Christian *opus sectile;* it is hoped that the present limited discussion takes a step in that direction.

A. CATALOGUE

1. Main Panels

The *opus sectile* at Poreč is treated in three separate units: the twenty-one main panels, the upper register, and the floor paneling.[7] The twenty-one

apse panels have been assigned numbers from 1 to 21 (north to south). The disposition of the panels around the curve of the apse is such that the designs of the first ten are repeated by identical counterparts in the last ten. Panel 11, the only unique design, is situated directly above the cathedra, marking the center of the apse. Most of the compositions, symmetrically arranged around a disc or rectangle of red or green porphyry, combine a wide variety of geometric shapes and stylized naturalistic motifs. Many of the panels are purely decorative (sets 1/21, 2/20, 5/17, 7/15, 9/13); some contain one or two pictorial elements (sets 3/19, 4/18, 6/16); a few present recognizable, if highly stylized, scenes (sets 8/14, 10/12, and panel 11).

The dominant materials used in these main panels are red and green porphyry, giallo antico, pavonazzetto, and mother-of-pearl. The last was a particularly fortunate choice. Set off against a background of the deep-colored porphyries and seen in the dim light of the basilica, the luminous mother-of-pearl produces a brilliant array of lights which appear to flicker and move across the other reflective marble and glass surfaces. In addition to these primary components some fifteen additional marbles, eight colors of glass, and a wide range of other materials enliven the unusually rich variety of colors and textures in the panels (see the list of marbles, below). Most of the narrow white borders which characteristically outline major design components are made from a white plasterlike material.

In this catalogue the panels are presented in matching sets of two, for example, set 1/21. The discussion of the first in a set provides a detailed description and analysis, while that of the second in a set indicates only individual features and variations. The associated drawings illustrate the manner in which each piece fits into the total design.[8] A second section defines certain workshop practices and circumstances of production at Poreč and reexamines the relationship between the Eufrasiana's *opus sectile* and the other primary sixth-century examples, at H. Sophia in Istanbul and S. Vitale in Ravenna.

Panel Set 1/21. Panel 1 (172 × 48.5 cm; Figs. 4,

The panels themselves exist in different states of preservation. For example, while panel 10 is relatively well preserved, panel 2 is poorly preserved. Restoration would have erased such variations. (2) Neither the panels nor the individual pieces of marble lie completely flat and even along a planar surface. Instead, they have settled at slightly different angles, and often individual pieces protrude or recess. Had the panels been restored, they would have a more uniform and undisturbed surface. (3) Much of the bonding material, the adhesive that joins the separate marble pieces together, has worn away and has never been replaced. A restoration would certainly have replenished the adhesive. (4) Many lost pieces of marble, glass, mother-of-pearl, and other materials have never been replaced. A restorer would have replaced these materials. (5) The surface condition of many of the materials is less than optimal. The marbles have not been polished, nor have the glass surfaces been cleaned, as they would have been during a restoration. (6) The most convincing indicator is that many panels have been repaired and/or patched (as opposed to restored) in an obviously piecemeal fashion. Materials such as sheet glass, plastic, paint, plaster, and modern cement substitute for ancient materials (panels 2, 4, 9, 11, 13, 16, 18, 20). Any significant restoration would have eliminated or disguised these inconsistencies. Finally, the unmistakable sign of restoration, the machine-cut, clean-edged, highly polished look, which is found at S. Vitale, for example, is totally absent at the Eufrasiana.

[6] On the *opus sectile* at S. Vitale, see von Horst Raab in F. W. Deichmann, *Ravenna, Hauptstadt des spätantiken Abendlandes,* II.2 (Wiesbaden, 1976), 118–35, figs. 62–63. On H. Sophia, see P. Underwood, "Notes on the Work of the Byzantine Institute in Istanbul: 1957–1959," *DOP* 14 (1960), 205–11, and W. R. Lethaby and H. Swainson, *The Church of Sancta Sophia* (London, 1894), 234–47. Good illustrations of the *opus sectile* at H. Sophia may be found in H. Kähler, *Hagia Sophia* (New York, 1967), especially pls. 64–65, 82–85.

[7] Other parts of the cathedral may have been reveted with large sheets of marble as at S. Vitale in Ravenna. In several old photographs of the basilica, the spur walls at the east ends of the nave arcades appear to be sheathed in Proconnesian; see, for example, fig. 41 in E. Brückner, *Dalmatien und das österreichische Küstenland* (Vienna, 1911), 159. Under normal circumstances, if marble sheathing had been used, a fitting on the underside of the marble pier cappings would have been used to secure the revetment. Today many layers of plaster bury the crucial section of the pier cappings. On the painted imitation *opus sectile* in the side apses, see Terry, *Eufrasius Cathedral,* 23.

Regarding the medieval graffiti etched into many of the panels, see F. Křížek, "Neue Inschriften aus der Basilica Eufrasiana in Parenzo (Istrien)," *RQ* 40 (1932), 381–87, and A. Degrassi, *Inscriptiones Italiae,* X.2 (Rome, 1947), 45–58.

[8] At times minor variations (the relative dimensions of certain small pieces) from the first to the second panel in a set are not reflected in the drawings.

5). The first and last panels are set into the east wall of the basilica, at the corner of the apse wall. They are bordered on one side by the projecting spur walls which support the easternmost arches of the nave arcades. This positioning determined their unusually slender proportions.

The main design, set into an outer border composed of pieces of Proconnesian and other similarly colored marbles (see the list of marbles, below, no. 22), centers on a tall rectangle of red porphyry (44.7 × 17 cm), itself surrounded by a green porphyry border inlaid with alternating mother-of-pearl circles and lozenges. In the center of each perfectly rounded mother-of-pearl circle is a drilled hole. Positioned symmetrically above and below the central design are three horizontal bands. In the upper and lower bands, complete half shells of mother-of-pearl are set into a background of green porphyry. The middle bands feature red Veronese lozenges, inscribed into a green porphyry background. Each side of each lozenge is marked with a mother-of-pearl quatrefoil. Inlaid mother-of-pearl triangles mark the intersection of the lozenges and the edges of the band.

Panel 21 (172 × 48 cm). The rectangle of red porphyry in the center of the panel is made from eight separate pieces of red porphyry. It is 5 cm taller than its counterpart in panel 1, thereby necessitating an additional set of the mother-of-pearl circle and lozenge pattern which forms the surrounding border. One small piece of marble in the bottom of the outer border has two small holes which contain traces of metal.

Panel Set 2/20. Panel 2 (171 × 89.5 cm; Fig. 6). The design of this panel, set within a border of pavonazzetto, is oriented around a vertical rectangle of green porphyry. Two horizontally set tripartite compartments are symmetrically positioned above and below the central rectangle. They are divided from both the main design and one another by a wide border of fourteen mother-of-pearl half shells. The central rectangle of green porphyry (58.5 × 38.4 cm), broken at the edges, is encircled by a narrow border of giallo antico. The tripartite compartments differ in size. In the top one, two red porphyry squares inlaid with a mother-of-pearl leaf flank a single square of turquoise blue glass. The bottom compartment is less well executed: the proportions are shorter than in its counterpart, the central square is a dark green glass, and directly above the compartment is a series of small, red porphyry slabs, evidently replacement pieces in an area that should have been green por-

phyry. It would appear that this bottom compartment was patched up at some point. Mother-of-pearl half shells and simple florets alternate along the generous green porphyry border which constitutes the remainder of the design. Each floret leaf is composed of a flame-shaped piece of mother-of-pearl. Relatively speaking, this panel is in poor condition. The upper right area of the panel, as well as the center, protrudes from the wall.

Panel 20 (173 × 92 cm; Fig. 7). A variety of light-colored marbles—pavonazzetto, giallo antico, Proconnesian, and others—are used in the outer border of this panel. The central rectangle of green porphyry is cracked in a number of places. The dimensions of the top and bottom horizontal compartments are more symmetrical here than they are in panel 2. In the central square in the bottom horizontal compartment, replacing the original marble, is a piece of bright blue plastic, broken at the upper right corner.

Panel Set 3/19. Panel 3 (170 × 88 cm; Fig. 8). An arabesque motif set within a lozenge dominates the composition of these panels. Long and regularly curved flame shapes in giallo antico frame the central disc of red porphyry (49.5 cm in diameter). Directly above and below the porphyry discs are two inset circlets (7 cm) of an unidentified green stone (unpolished green porphyry?). The background of the diamond is green porphyry, and the border around that is giallo antico. Each of the four triangular compartments consists of red porphyry outlined in green porphyry and features a cornucopia in giallo antico. The S-shaped cornucopia is decorated with three "jeweled" bands inlaid with, respectively, three, two, and one circlets of a coral-colored material. The heart shape terminating the bottom left cornucopia is executed in mother-of-pearl; the others are giallo antico. The opening of each cornucopia is decorated with half circles, perhaps representing fruit. At the top and bottom of the panel, in the concave inset formed by the edge of the triangle, are five mother-of-pearl petals against a red porphyry background.

The arabesque motif used as the main design in panel set 3/19 is a variation of an extremely common motif in the decorative arts of late antiquity.[9] A "flamelike arabesque around the disks of porphyry" was repeated a number of times around the

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[9] Susan Boyd dealt in more depth with this motif, which she described as a "wavecrested palmette framed by a lozenge"; see "A Little-Known Technique of Architectural Sculpture: Champlevé Reliefs from Cyprus," *JÖB* 32/5 (1982), 312–25.

walls of the Orthodox Baptistery in Ravenna.[10] It is also found in floor mosaics, ivories, and other media.[11] The Poreč configuration finds its closest parallels in a painted, imitation-marble panel from Basilica A at Philippi (ca. 500) and in several marble panels at H. Sophia.[12]

Panel 19 (171 × 89.5 cm; Fig. 9). In panel 19 the bottom right piece of the outer border is missing. The lower of the two small circlets above and below the central disc of porphyry (56.5 cm) is in a black-and-white marble (list, no. 13). Three small holes along the right outer border have been imbedded with some kind of fixing; metal traces are visible.

Panel Set 4/18. Panel 4 (169 × 89 cm; Fig. 10). This unusual and highly compartmentalized design makes use of a wide variety of shapes and materials. The center two-thirds of the panel is dominated by a disc of green porphyry (35.5 cm), itself encircled by a border of turquoise blue glass inlaid with mother-of-pearl petals set end to end.[13] The four corners of the central rectangle are occupied by motifs of interlocking squares which frame mother-of-pearl flowers set into green porphyry backgrounds.[14] The triangular corners of the squares are alternately set in turquoise blue glass and orange glass. Each interlocking square motif is set into a background of lime green glass.[15] The interlocking square motif appears to be an adaptation of the smaller, more sophisticated panels used in the upper register. The dolphins, carved in very low relief, are probably spoils. Flanking the sides of the central disc are two sets of dolphins in giallo antico on a turquoise blue glass background.

Flanking the central disc on the top and bottom are triangles in a black-and-white marble on a red porphyry background.

The remainder of the panel consists of four horizontal strips, two above and two below the central design; these are highly compartmentalized and overlaid with bold lozenges. The inner strip, that closest to the central square of the panel, has a green porphyry background. Tear-shaped pieces of turquoise blue glass bordered with giallo antico flank the central lozenge, executed in a medium green glass.[16] Triangular insets in a black-and-white marble finish the side edges. In the outer strip the side compartments feature mother-of-pearl quatrefoils (with a center of orange glass?) set into turquoise blue glass.[17] Small vertical slabs of giallo antico flank the central compartment of red porphyry, itself inset with triangles in a white with light brown marble (list, no. 15).

Panel 18 (171 × 89 cm; Fig. 11). At the bottom of this panel both the lozenge shape and the teardrop shapes to the left use replacement clear sheet glass over blue paint(?). Green porphyry replaces the giallo antico in the small vertical slabs in the outer strip.

Panel Set 5/17. Panel 5 (169.5 × 89 cm; Fig. 12). In contrast to set 4/18, this simple square design on a stark green porphyry background employs a minimum of shapes and materials. The central roundel of red porphyry (43 cm) is wreathed by a ring of green porphyry inlaid with diamond-shaped pieces of mother-of-pearl. The slab of red porphyry in the center was evidently not large enough for its setting, so that a series of filler pieces in red porphyry was carefully cut and placed around the main disc, increasing its diameter to 48 cm. Four triangles of giallo antico "square off" the circle.

The only other design elements, at the top and bottom of the panels, are green porphyry rectangles (28 × 16 cm) outlined with red porphyry and flanked by lozenges in giallo antico. The piece of green porphyry in the upper rectangle has an irregular surface. The outer border of this panel makes use of several pieces of a double-grooved, profiled molding in a singular gray-and-white marble (list, no. 10). These are clearly spoils. The entire right border consists of one piece of this spoil, cut vertically along the grooves; other pieces of it, cut across the groove, are in the top and left bor-

[10] S. Kostof, *The Orthodox Baptistery of Ravenna* (New Haven, Conn., 1965), 58, who cited other examples.

[11] An example of an inscribed lozenge may be seen in the floor mosaics at Horvat Berachot; see Y. Tsafrir and Y. Hirschfeld, "The Church and Mosaics at Horvat Berachot, Israel," *DOP* 33 (1979), figs. 15 and 17. For a similar example in ivory, see K. Shelton, "The Consular Muse of Flavius Constantius," *ArtB* 65, 1 (1983), fig. 6.

[12] For Philippi, see P. Lemerle, *Philippes et la Macédoine orientale à l'époque chrétienne et byzantine* (Paris, 1945), xxiv. For H. Sophia, see fig. 8 in Lethaby and Swainson, *Sancta Sophia*.

[13] This motif appears in a number of the prefabricated glass *opus sectile* panels discovered recently at Kenchreai. See panels nos. 43, 44, 51, 52, 65, and 66 in L. Ibrahim, R. Scranton, R. Brill, *Kenchreai II: The Panels in Opus Sectile in Glass* (Leiden, 1976), 211. In the text, the blue glass at the Eufrasiana is mistakenly identified as blue marble, and the narrow white borders are mistaken for marble.

[14] The interlocking square motif is identified as an "étoile de deux carrés" in H. Stern, "Répertoire graphique du décor géométrique dans la mosaïque antique," *Bulletin de l'association international pour l'étude de la mosaïque antique* 4 (1973), 23 note 45.

[15] The central top section of the bottom left square, which should be lime green glass, is red porphyry instead.

[16] The corresponding diamond shape at the bottom of the panel is replaced with clear sheet glass over blue paint(?).

[17] The corresponding area at the bottom of the panels is green porphyry.

ders. The remainder of the borders is executed in slabs of the same marble but without profiles.

Panel 17 (171 × 89 cm; Fig. 13). The top, left, and bottom outer borders of panel 17 also make use of lengths cut from the profiled spoil. In this panel the central disc of red porphyry is made up of one piece, 49 cm in diameter.

Panel Set 6/16. Panel 6 (169.5 × 89.5 cm; Fig. 14). An intricate composition using a number of materials unique to the main panels distinguishes this set. The central space is characterized by an ingenious grouping of rectangles and repeated borders. At the top and bottom twin cornucopias flank a trident. The outer border, instead of the usual giallo antico, pavonazzetto, and/or Proconnesian, consists primarily of a light brown, gray, and white marble with very elaborate curving and twisting grain patterns (list, no. 20). Each panel is subdivided into three main units which, to avoid long and repetitive descriptions, are referred to as units 1 (left), 2 (center), and 3 (right). Unit 2, the center, focuses on a vertical rectangle of green porphyry framed by a series of five borders in the following order: (1) cut pieces of ivory—4 mm wide; (2) giallo antico—1 cm;[18] (3) a dark-colored material—2.5 mm; (4) pieces of ivory—4 mm; and (5) green porphyry—1 cm. The use of ivory is unique to this set of panels. A border of giallo antico (1 cm) connects the central slab of green porphyry (with its many borders) to the horizontal insets above and below. The top inset, the so-called "Alexandrian candelabra" mentioned in all accounts of the *opus sectile,* is the result of extraordinarily fine, detailed, and careful craftsmanship, and is clearly a spoil. It is composed of several translucent pastel-colored materials (alabaster? see list, nos. 29–31) set against a green porphyry background. As has often been pointed out, the elaborate floral motif was set into the composition on its side, that is, incorrectly. This suggests that its original or proper context was either unknown or unimportant to the artist of the panel. The corresponding horizontal inset, below the central slab of green porphyry, is unadorned green porphyry. Around both horizontal insets are borders first of ivory (3 mm) and then of a dark-colored material (2 mm). A series of borders frames the entire central unit: (1) the dark-colored material—2 mm; (2) ivory—3 mm; (3) a three-part floret border in rose and white stone—3.5 cm; and (4) green porphyry—2 cm.

The floret border is of particular interest.[19] In it, two narrow white borders (3–4 mm) flank a lovely strip of motifs which can be read as either rose-colored curvilinear squares inscribed in a white circle with a rose-colored background or four-petaled white florets on a rose-colored background. I identify parts of this floret strip as spoils on the basis of their material, technique, and manner of installation. First, the rose and white materials, which have not been positively identified, are found nowhere else in the main panels.[20] They have a surface and finish similar to that of plaster, but the material itself is much harder and may possibly be sandstone. Second, the technique differs substantially from the rest of the panels in the following ways. The white petals and intervening tiny squares are very shallow pieces (less than 1 mm for the squares and 2 mm for the petals, whereas pieces elsewhere measure 9 mm to 1 cm) set into depressions made in the rose material. This is best seen in places where the white petals or squares are missing. The white pieces, as well as the recesses into which they are set, are evenly and precisely cut. Second, the manner in which the floret strip is inserted betrays it as a foreign element: the strip was cut into four pieces which were then placed around the central panel (Fig. 15). The pattern is therefore not continuous, but breaks off at each corner. Moreover, in the upper right corner (and in several other places in panel 16), where two strips of the border intersect, small sections of what once was a narrow white border were not removed; these clearly mark the place where one strip was cut and another joined to it. Finally, the original, carefully crafted floret is used in conjunction with what appears to be a clumsily executed copy. This is true particularly at the top, bottom, and along large portions of the right side of panel 6 and on the top, bottom, and left sides of panel 16. There is some question as to whether moisture damage could have seriously distorted sections of the original, making them look like clumsy copies.

In units 1 and 3, flanking the center, a multiplication of narrow borders frames a vertical strip in which rose-colored curvilinear squares set into a white background alternate with vertical rectangles of alabaster. Enclosing each slab of alabaster and each white square are borders of rose and white

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[18] Some of the pieces in this border are orange glass rather than giallo antico.

[19] An identical floret border occurs frequently in the glass panels from Kenchreai; see Ibrahim et al., *Kenchreai,* nos. 16, 18, and 19, among others.

[20] These unusual materials in panels 6 and 16 reappear only in the upper register.

stone (each 4 mm wide). Framing all five motifs are borders of rose (4 mm), white (4 mm), an unusual, even-textured turquoise blue glass (1 cm), white (4 mm), and rose (10 mm).[21]

Units 1 and 3 may be identified as spoils on the basis of technique and material. (1) The use of multiple narrow borders sets them apart from the standard *sectile* work at Poreč. Simple, broad borders of several centimeters in width characterize the rest of the main panels. Each narrow border in units 1 and 3 consists of numerous carefully fitted strips. Although panels 6 and 16 are not in an excellent state of preservation, and some of the materials in units 1 and 3 have been lost, it is still clear that the individual components were precisely measured and cut. Each strip in a border, for example, is the same width. By contrast, the white borders used to highlight design components in the other main panels are uneven in width and consist of imprecisely cut strips of the white plasterlike material. (2) The materials used in units 1 and 3— alabaster, rose stone, white stone, and the even-textured turquoise blue glass—are not used anywhere else in the main panels. Where they do reappear, in the upper register, again in the form of precisely cut multiple narrow borders, they are also identified as spoils.

The cornucopias and tridents in the upper and lower thirds of the panel are set against a simple green porphyry background. The cornucopias, similar but not identical to those in panel set 3/19, are turquoise blue with three jeweled bands, themselves inset with a number of circlets in red (plaster?). The three "fruits" in each cornucopia are mostly red marble, turquoise blue glass, giallo antico, and a white material. The giallo antico trident, with its delicately crafted spear hooks in mother-of-pearl, may be a spoil.

Panel 16 (170 × 88 cm; Figs. 16, 15). In panel 16 the slab in the center of unit 2 is made from eight pieces of green porphyry. The "Alexandrian candelabra" in this panel, although a different design, is a spoil of the same type as that in panel 6. The floret strips in this panel are evenly cut at each corner, retaining their original borders, which, as noted above, indicates that they were reused spoils. More of the floret strip in this panel appears to be the original spoil. The surface finish, however, dif-

fers slightly. On the right side (12 florets from the bottom), some of the original surface finish survives. It is impossible to determine, in some instances, which parts are original and in good condition, which are original but worn, and which may actually be copies. In unit 3 Proconnesian has replaced the alabaster used in panel 6. In part of the bottom cornucopias, clear sheet glass over a blue background replaces the original blue glass.

Panel Set 7/15. Panel 7 (170.5 × 89 cm; Fig. 17). This simple but extremely successful composition is based on a three-part central motif, framed and enlivened by a luxurious stylized vine motif. The central unit of red porphyry (60 × 31 cm) consists of three main pieces and two additional strips, one along each side. The side strips themselves are composed of long, narrow pieces of red porphyry. Squares of green porphyry inscribed with lozenges of the same material border the central slab above and below. The four circles in each corner of the square are giallo antico. It is the curving ivy vine motif, however, that animates this panel. Set against a green porphyry background, two wavy parallel lines face one another, front-to-front, in a playful and dynamic pattern. Flourishes of mother-of-pearl are provided by the ivy leaves, and turquoise blue glass is set in triangular insets, which are placed on the other side of the vine from the ivy leaves. A narrow strip of red porphyry (3 cm) borders the entire panel.

Panel 15 (170.5 × 87 cm; Fig. 18). The central rectangle (57 × 28 cm) appears to be made from one piece which is cracked in the center.

Panel Set 8/14. Panel 8 (170.5 × 87.5 cm; Fig. 19). The captivating design in nos. 8/14 combines a stylized architectural motif—an arcuated lintel supported by two columns—with a variety of purely geometric shapes. The columns, framed on three sides by strips of red porphyry, are inlaid with a large variety of irregularly cut pieces of marble. The columns themselves appear to have been made separately, first inlaid with the pieces of marble and then placed into the panel. The background of the columns, into which the pieces of marble are set, is a dense, grainy, cement-colored substance which has separated from the side borders. This cement-colored background might be replacement, or pehaps it was originally furnished with a decorative surface or finish of some kind. These columns are reminiscent of the type of inlaid columns known from the Early Byzantine churches of H. Euphemia and H. Polyeuktos in Istanbul (both sixth

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[21] This turquoise glass has a finer texture, deeper color, and more even surface than the other examples of turquoise glass; see that in panels 4/18.

century), now in the Archeological Museum in Istanbul.[22] Delicately carved giallo antico capitals, one of the panel's most impressive features, are probably spoils. The workmanship is exceptionally fine and unlike any other sixth-century work in the panels. A turquoise blue glass background with alternately vertical and horizontal inset lozenges in giallo antico forms the arcuated lintel. The curve of the arch is repeated below in green porphyry with semicircles of mother-of-pearl. A disc of red Veronese marble set into a slab of green porphyry outlined with mother-of-pearl half circles completes the space under the arch.

The area between the columns is occupied by pieces of red and green porphyry. The large vertical rectangle in the upper portion is made from two pieces of green porphyry. A narrow strip of red porphyry separates it from the lower design, a green porphyry lozenge set into a red porphyry background.

The space above the arch is animated with a color-diversified step pattern in red-and-green porphyry, pavonazzetto, and giallo antico. The colors are arranged so that they create diagonal zigzags which radiate from the crowning feature—a monogram of Eufrasius set into a dark blue glass background. Finally, a narrow green porphyry border (3.5 cm) surrounds the whole panel.

Panel 14 (171.5 × 88.5 cm; Fig. 20). In panel 14 the large rectangle of green porphyry between the columns is composed from at least three pieces, which are cracked in a number of places. The green porphyry lozenge set into the red porphyry square below is also made from several pieces. One of the "fill" pieces within the left column (about one-third of the way down) is a flame-tip shape in Proconnesian—the only shaped piece used in the columns in set 8/14.

Panel Set 9/13. Panel 9 (170.5 × 89.5 cm; Fig. 21). In set 9/13 a border of alternating circles and diamonds frames, on three sides only, a central core subdivided into several geometric shapes. The circles (half shells of mother-of-pearl) and the diamonds (Proconnesian) were originally set into a background of turquoise blue glass, which is preserved only along the top, down to the center of the first diamond on the left, and down to the center of the second circle on the right. The rest is a replacement of clear, modern sheet glass over a

painted blue background. Along the bottom the circle-and-diamond border is replaced by a thin strip of red porphyry.

The core of the design is made up of three units. At the bottom a large slab (two pieces) of red porphyry is surrounded by borders of Proconnesian and then red porphyry. In the central unit an arch of Proconnesian enclosing a field of red porphyry (three pieces) is intersected by the third unit, an "upside-down" triangle in a black-and-white marble, outlined with a thin border of green porphyry. In the horizontal strip at the top, bordered with green porphyry, the original stone has been replaced by a piece of hard blue plastic. The entire panel is surrounded by a narrow border of green porphyry and a wide outer border of white stone. In comparison with that of other panels, a fairly large amount of this border is executed in Proconnesian.

Panel 13 (171 × 89 cm; Fig. 22). The circle-and-diamond border in this panel retains its original turquoise blue glass along the top, down to the center of the second diamond on the left, and to the center of the second circle on the right. The loss of the rest of these borders in set 9/13 may be due to souvenir taking over the course of time.[23]

Panel Set 10/12 (171 × 33 cm; Figs. 23, 24). In panel set 10/12 tall, slender candelabra heraldically flank the cathedra and the central *opus sectile* panel in a tableau that acts as the centerpiece of the *opus sectile*.[24] A beadlike string of oval and circular shapes in mother-of-pearl set against a green porphyry backdrop forms the stem of the candelabra. A tall candle executed in a light brown marble (list, no. 19) stands on a five-part, mother-of-pearl base. The flame tip itself is orange glass. A narrow border of green porphyry outlines the panels.

Panel 11 (103 × 94 cm; Fig. 23). The Poreč *opus sectile* culminates in this panel, which represents a gold cross on top of a hill against a sky filled with mother-of-pearl florets. Teardrop serifs mark the ends of the cross arms.[25] The cross itself is partially filled with modern sheet glass and set against a background of modern gold paint; it is not certain how it was originally decorated. It stands on a

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[22] R. Krautheimer, *Early Christian and Byzantine Architecture* (Harmondsworth, 1975), figs. 178–79.

[23] An arm's reach from a standing position on the seat of the synthronon is roughly equivalent to the line between the original and replacement areas.

[24] On the type of candlestick represented here, see Lethaby and Swainson, *Sancta Sophia,* 118–19.

[25] See the commentary by I. Ševčenko, "The Moses Cross at Sinai," in K. Weitzmann, *Studies in the Arts at Sinai* (Princeton, 1982), 85 ff and examples noted therein.

semicircle of red porphyry inlaid with two vertical bands of orange glass, which represents the hill of Golgotha.[26] It is tempting to associate the scene with the jeweled cross erected by Theodosius II on the hill of Golgotha itself. The orange bands presumably represent the rivers of Paradise, even if there are only two of them. A similar panel decorates the west nave wall at H. Sophia.

The most lavish display of mother-of-pearl was reserved for this panel. Mother-of-pearl florets radiating from circlets of orange glass (many do not survive) crisscross the green porphyry background in a pattern imitative of a star-filled sky. Along the base of the design, mother-of-pearl ovals alternate with rectangular pieces of giallo antico, all against a red porphyry background. Along the top of the design, in a smaller version of this oval-and-rectangle border, the rectangles are composed of orange glass and giallo antico. A band of red porphyry borders the panel on three sides. A second border, of green porphyry, binds panel 11 with the back of the cathedra, extending down on both sides to the arms of the throne.

2. Upper Register

The upper register of the *opus sectile* (Fig. 25) consists of a continuous decorative frieze subdivided horizontally into three bands of unequal height: a wide central band between two narrower decorative borders. This register is set off from the main panels below by a projecting molding of Proconnesian (3 cm wide)[27] and from the wall mosaics above by a foliate stucco frieze resting on a stepped cornice of Proconnesian.

The central frieze of the tripartite upper register is composed of four types of individual motifs (A, B, C, D) arranged in a very loosely rhythmic pattern. While the motifs alternate fairly regularly, there is no detectable repetitive sequence. The cul-

prit in this matter is motif D, which appears only six times.[28] Each motif is surrounded by several extremely narrow borders in contrasting colors. As in panel set 6/16, these borders, precisely cut and carefully constructed, are identified as spoils.

Not included in the four motifs mentioned above are the two end panels facing west (directly over panel set 1/21). In these, rectangles of black-and-white marble are surrounded by a series of narrow borders in different materials in red, white, and blue. The use of a black-and-white marble distinguishes these end panels from the four motifs used in the upper register.

Three of the four main motifs consist of variously shaped slabs of alabaster; the fourth features an intricate, interlocking square design executed in different colors of glass(?). In motif A, a vertical rectangle of alabaster is set within four borders, arranged from the inside as follows: (1) narrow rose, (2) yellow, (3) narrow rose, and (4) narrow white. The rose, apparently neither plaster nor marble, is identical to the material used in panel set 6/16. In many instances part or all of these borders is either missing or replaced with another material. The upper register, in general, is not as well preserved as the main panels.

Horizontal alabaster rectangles of varying lengths characterize motif B,[29] which, in most instances, has two borders—a rose and a narrow white one. Motif C features a disc of alabaster wreathed with a narrow rose and a white border, set against a square background of the rose material. A narrow white border encloses the entire motif. There is little variation within this type. In motif D (24 × 24 cm) two interlocking squares enclose an intricate rosette design which employs a variety of materials and colors. The interlocking squares are (*a*) blue with two narrow white borders and (*b*) orange glass(?) with dark blue(?) borders. The rose material fills the spaces between the squares as well as the background of the rosette. The rosette itself consists of concentric rings of orange and blue

[26] On the cross at Golgotha, see C. Sheppard, "Byzantine Marble Slabs," *ArtB* 51 (1969), 65 ff. For a discussion of the iconography of this cross in the context of the 6th century, see O. von Simson, *Sacred Fortress* (Chicago, 1948), 42 ff. A good contemporary literary source is the group of hymns of Venantius Fortunatus, who studied at Ravenna ca. 530; see J. Szövérffy, *Hymns of the Holy Cross* (Brookline–Leiden, 1976). The apse mosaic at S. Pudenziana in Rome (402–17) may represent Theodosius II's cross on Golgotha; see E. Kitzinger, *Byzantine Art in the Making* (Cambridge, Mass., 1977), fig. 80. For Paul the Silentiary, see C. Mango, *The Art of the Byzantine Empire, 312–1453: Sources and Documents* (Englewood Cliffs, N.J., 1972), 88.

[27] Very poor light combined with inaccessibility made close examination of all parts of the upper register impossible, for which reason they are recorded less precisely.
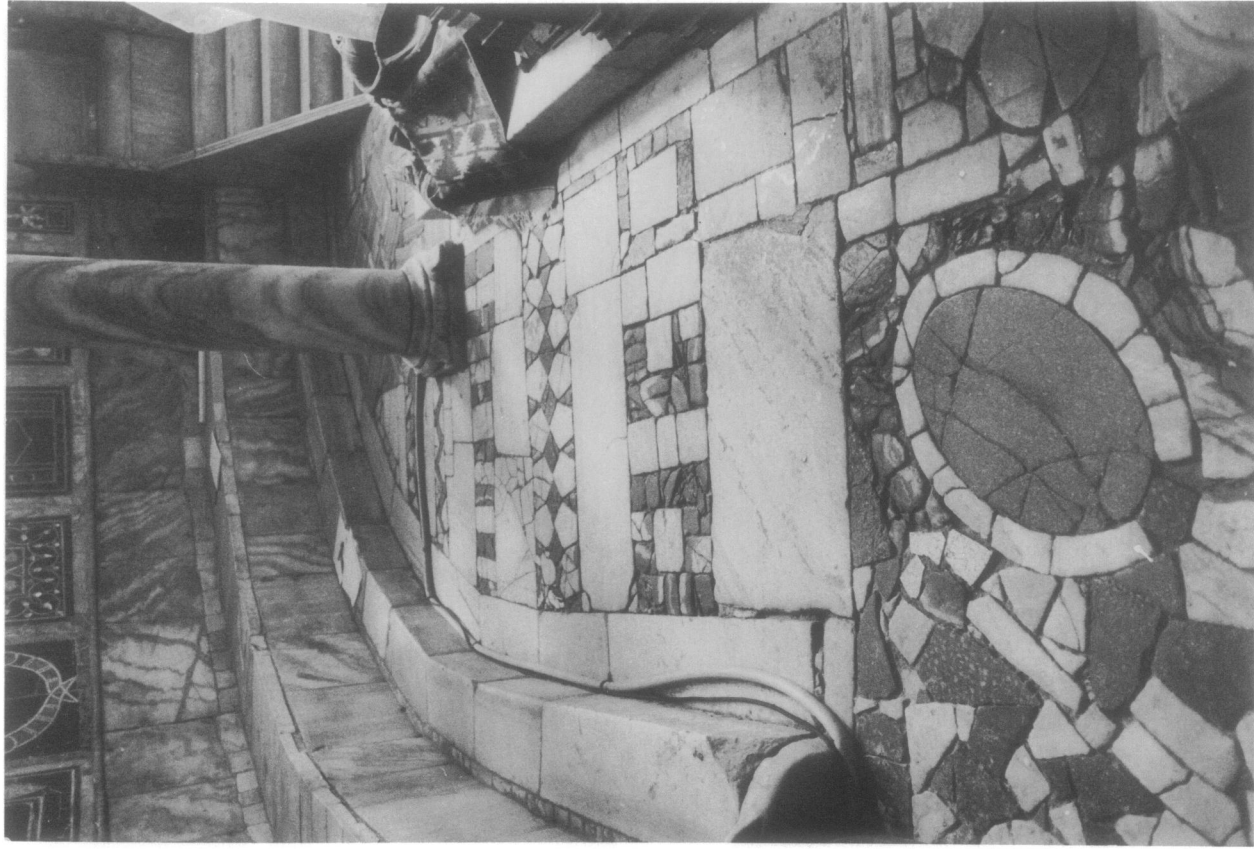
[28] There are 61 motifs in this band. The arrangement is as follows (X = end motifs which face west and are unlike any others): (X)AB/ACA/BD/BA/BCB/ABA/BD/BC/BA/BDB/AB/AC/ ADA/CA/BAB/DB/AB/ACA/BABC/BD/BACA/BABCBA(X). The slashes (/) indicate where the panels were cut for installation. The fourth motif, D, was spread somewhat rhythmically across the panels (X–6–D–9–D–5–D–6–D–6–D–11–D–10–D–X), with a concentration at the center of the apse, over the cathedra.

[29] In some instances, for example, in the first occurrence of motif B from the north, the slab is made from two pieces of alabaster and a strip of giallo antico.
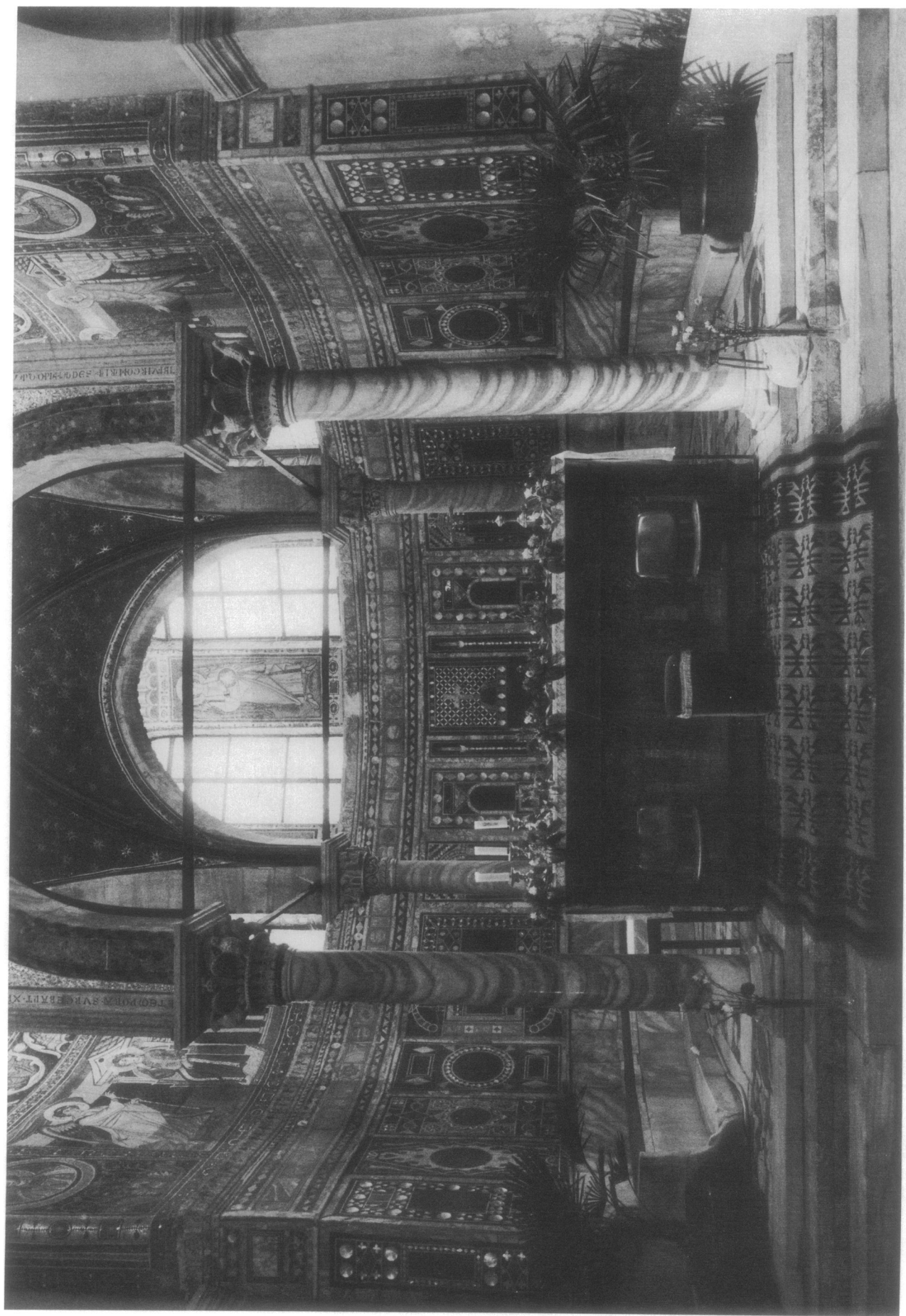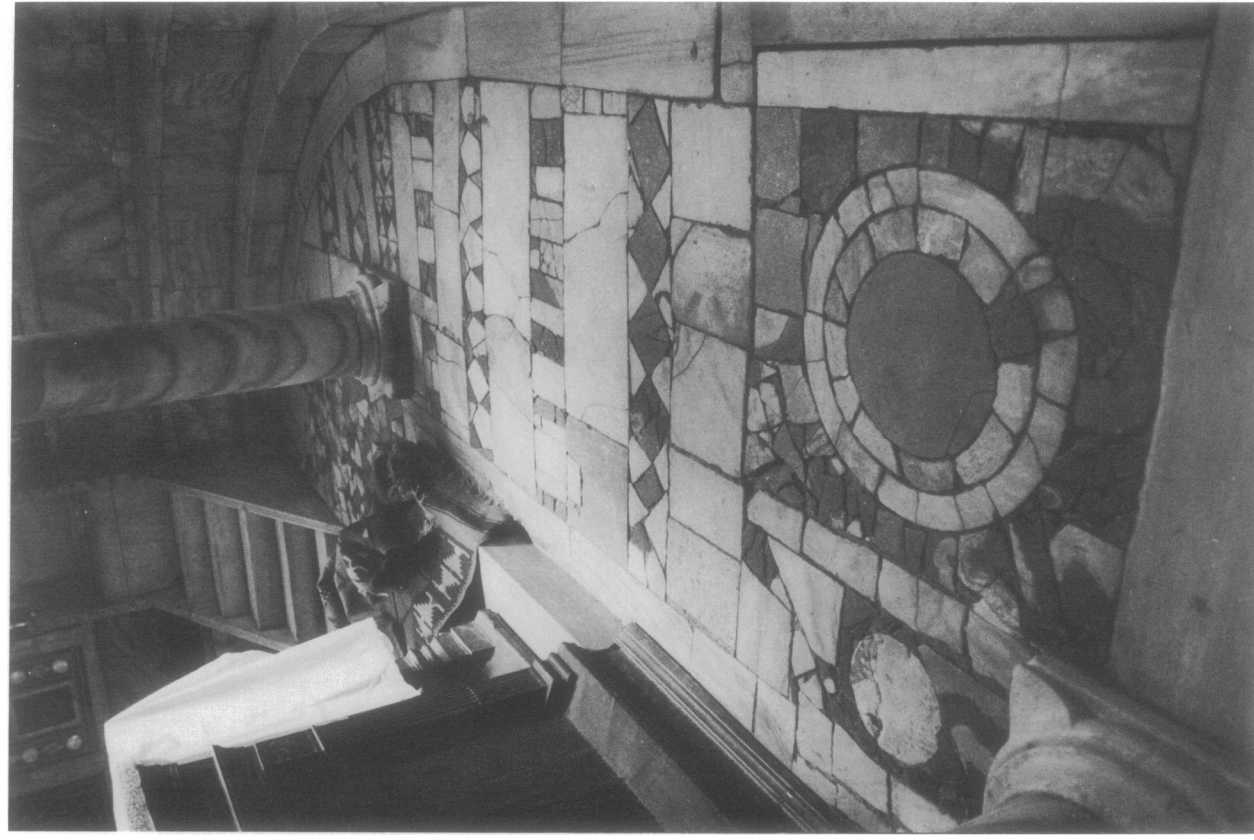
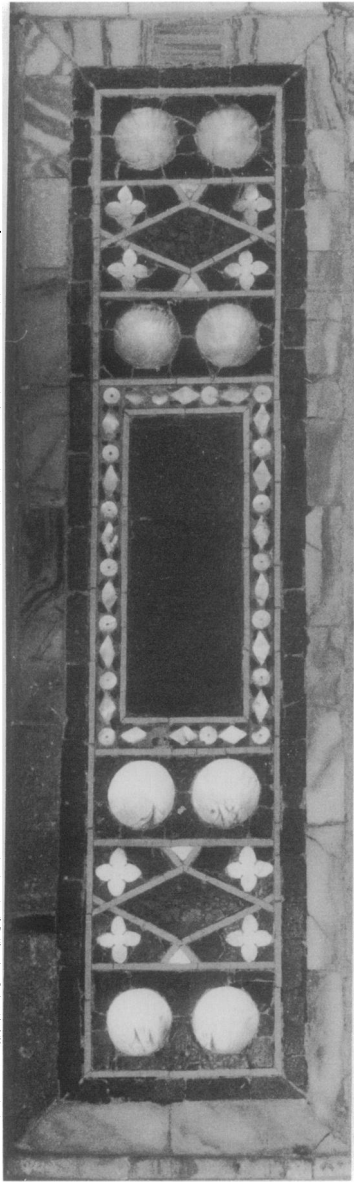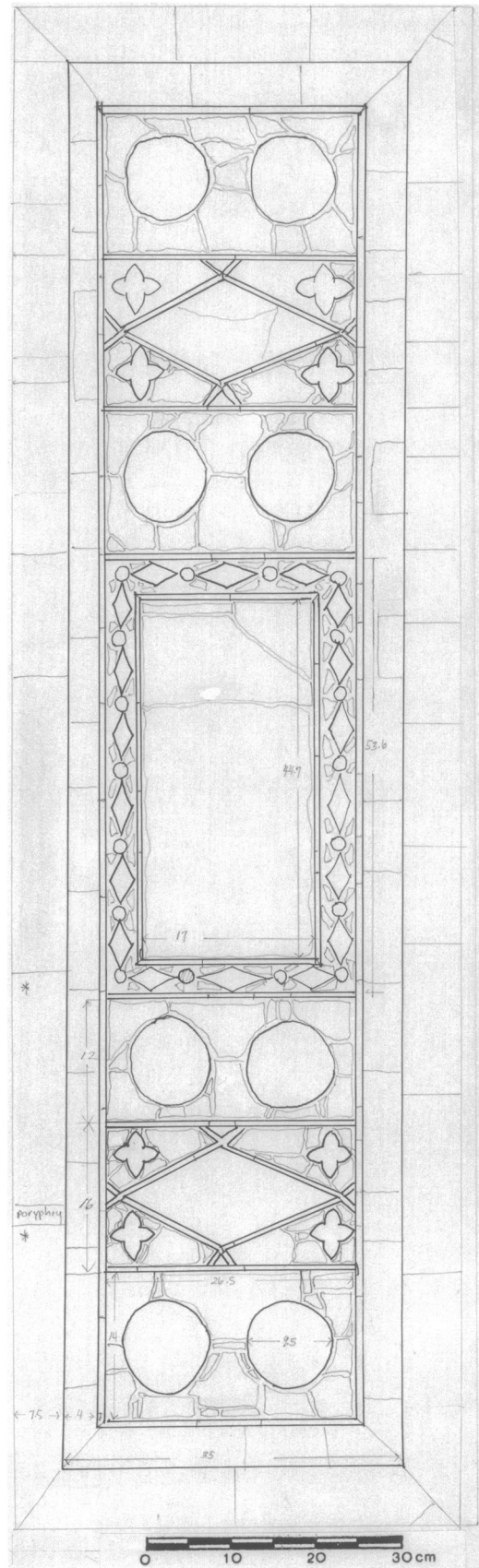1. Poreč, Eufrasius Cathedral, *opus sectile*, general view
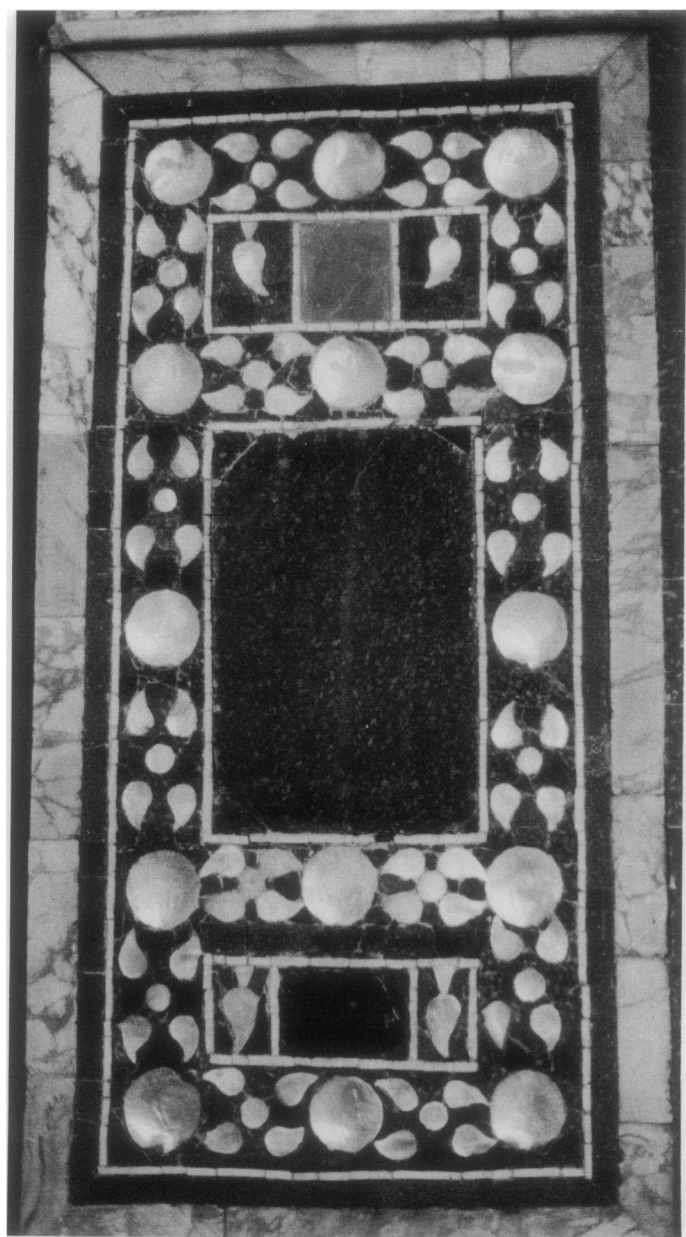
3. Apse pavement, south side
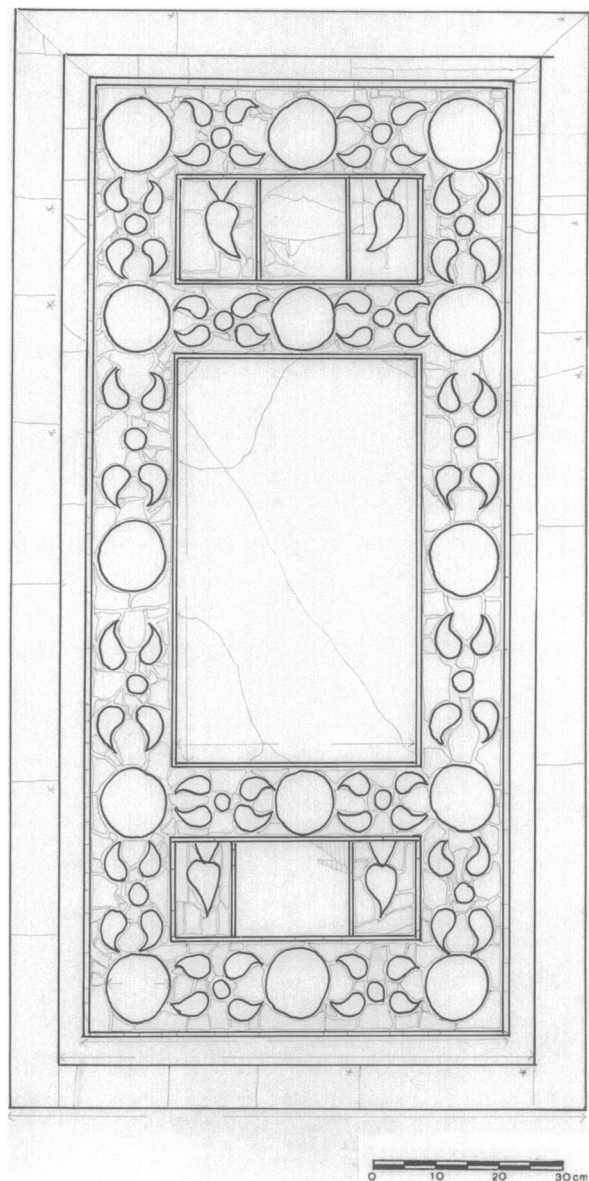

2. Apse pavement, north side

4.   *Opus sectile,* panel 1
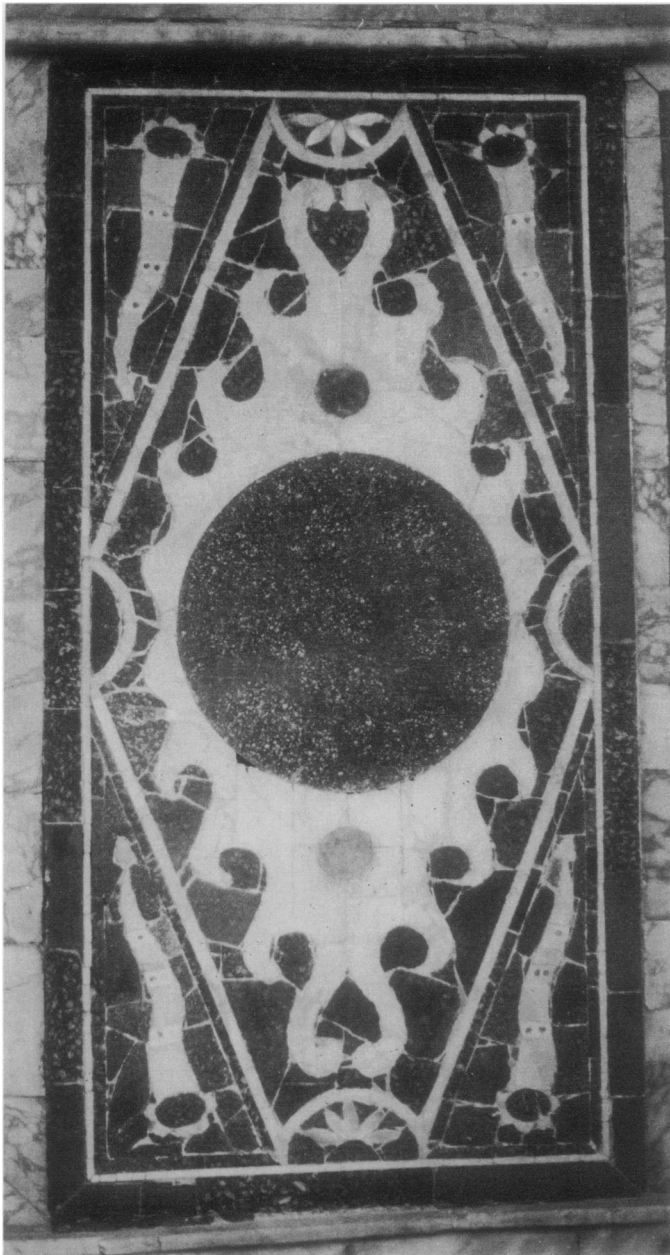

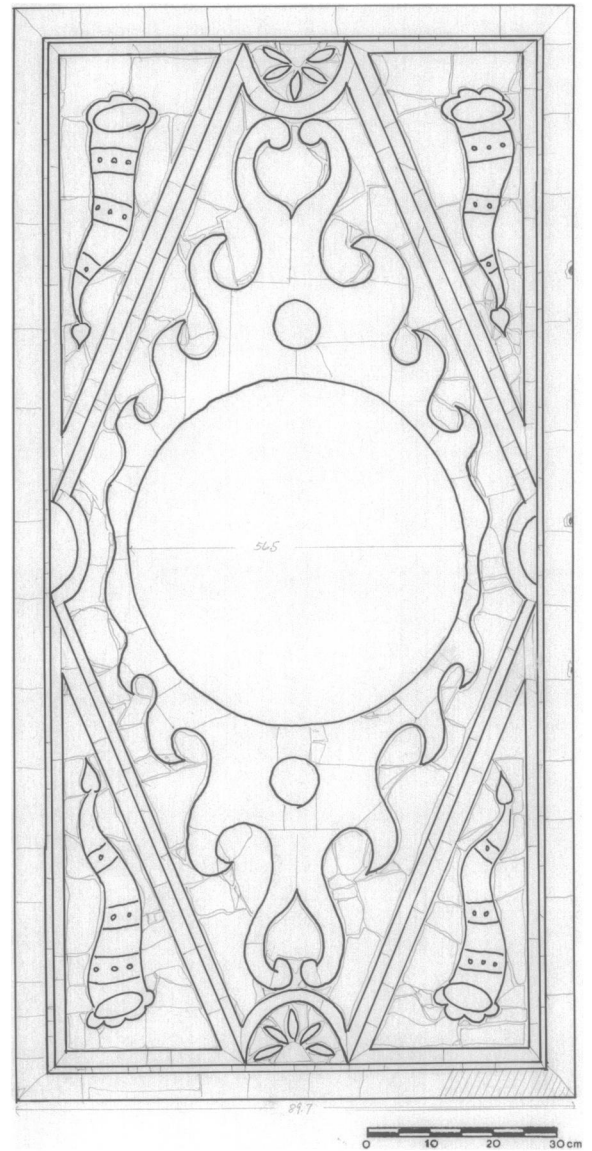5.   *Opus sectile,* panel 1, drawing

6. *Opus sectile,* panel 2

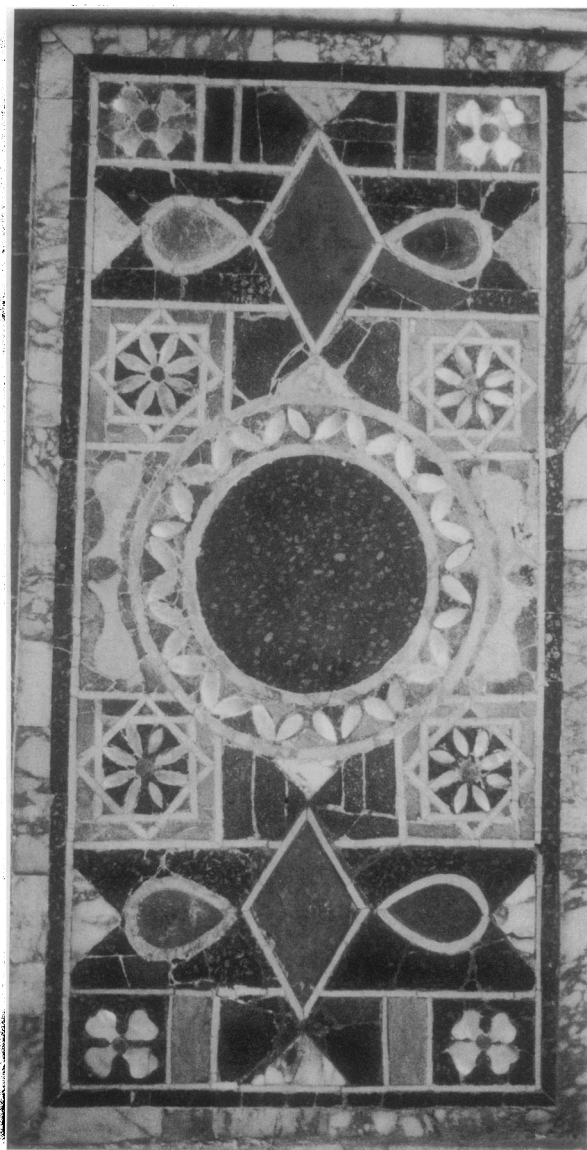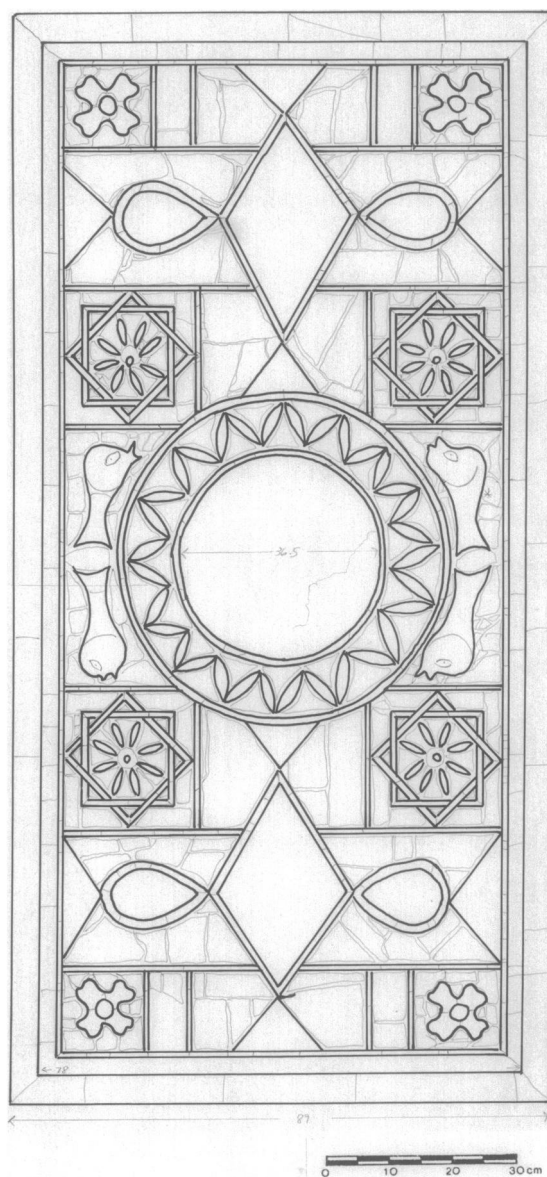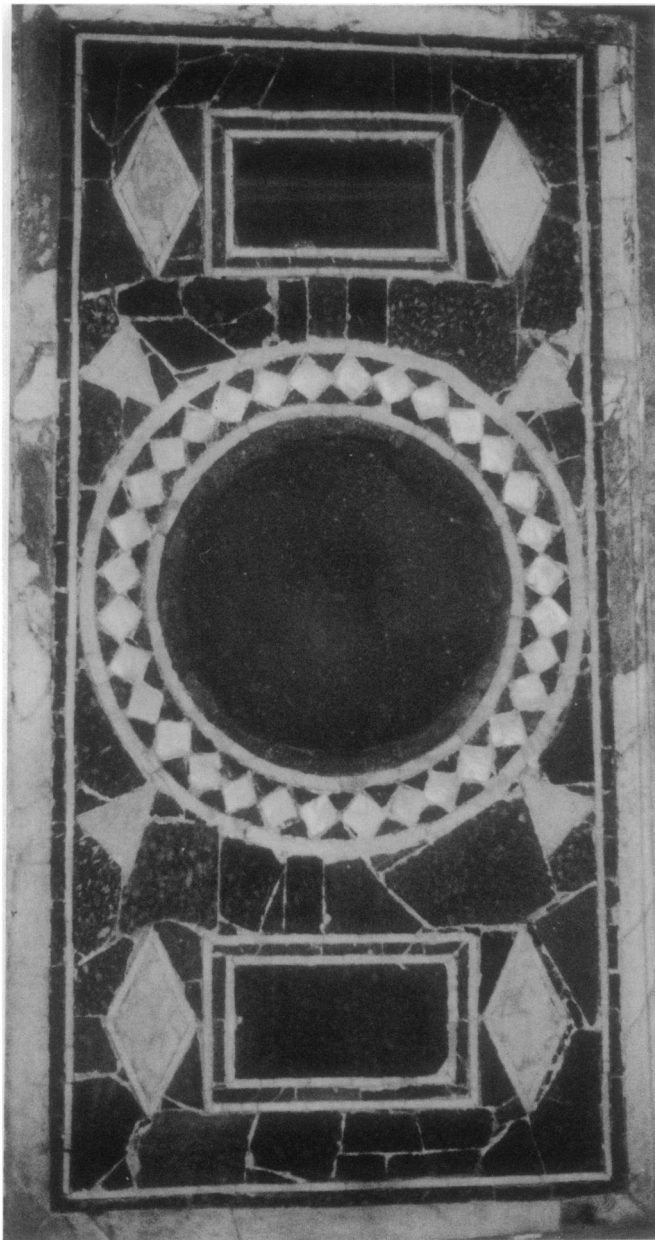7. *Opus sectile,* panel 20, drawing

8. *Opus sectile*, panel 3

9. *Opus sectile*, panel 19, drawing
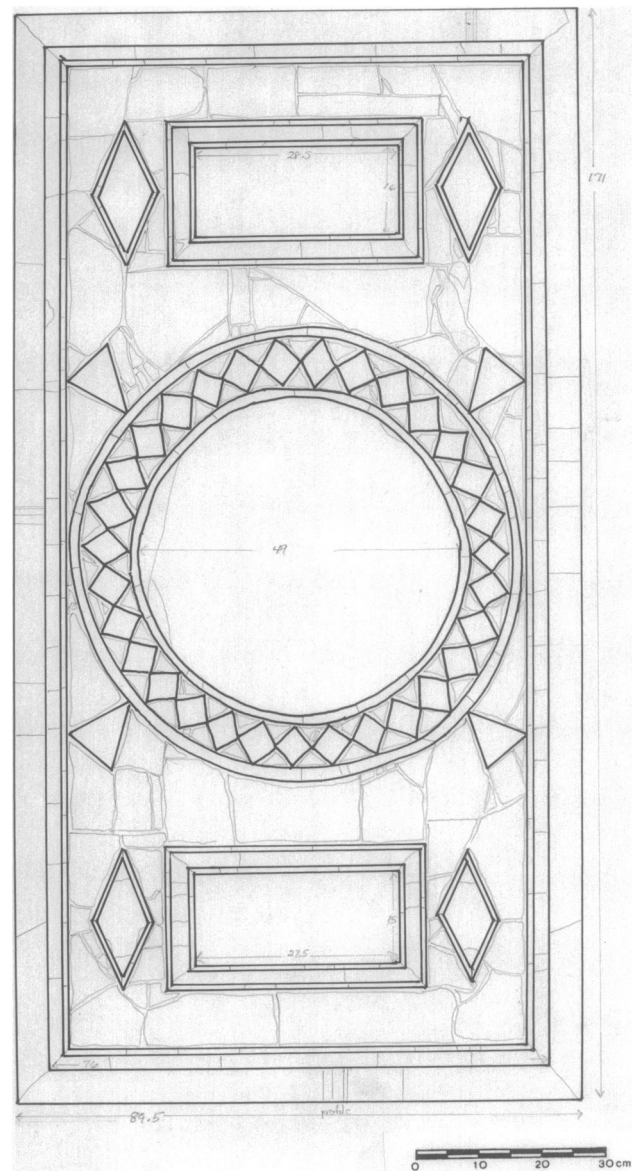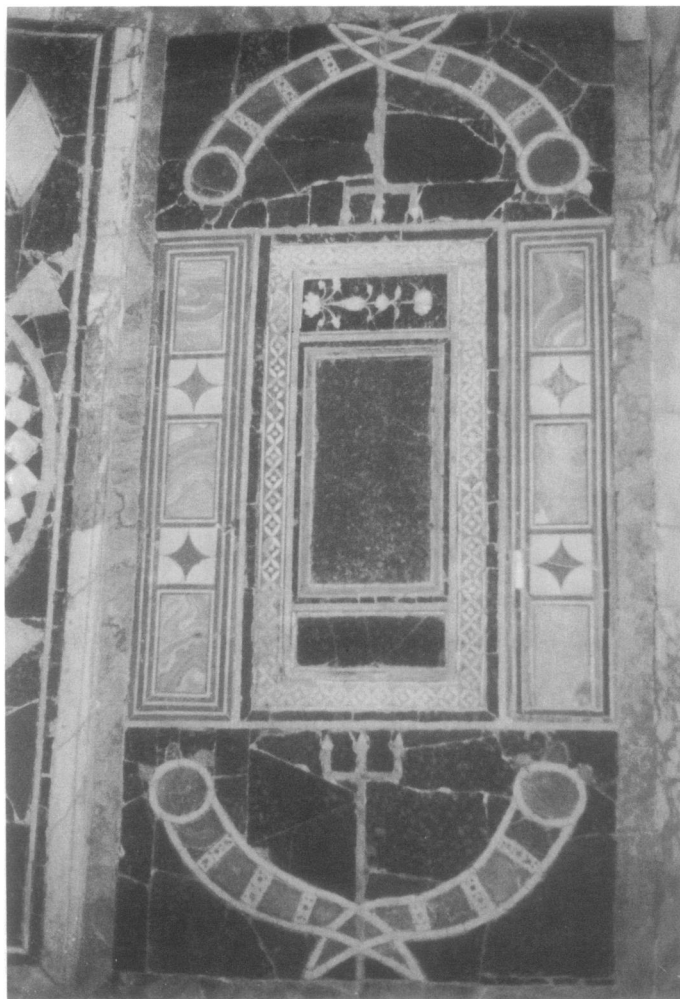
10.   *Opus sectile*, panel 4

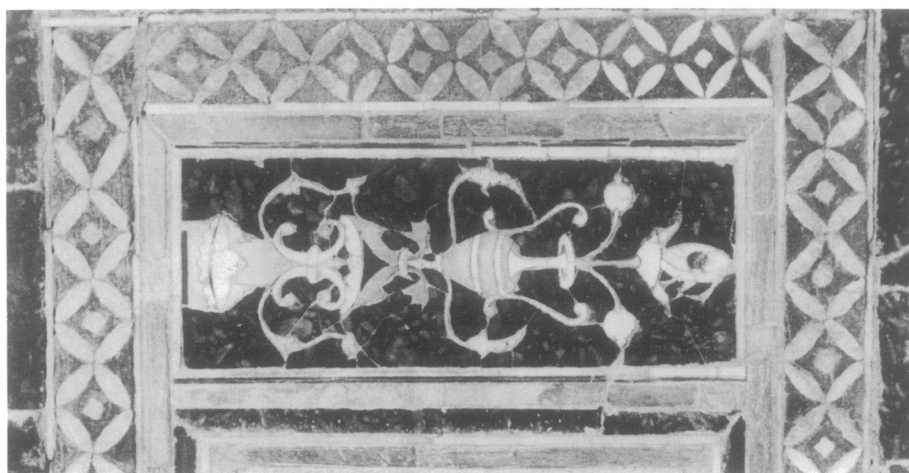11.   *Opus sectile*, panel 18, drawing

12.   *Opus sectile*, panel 5

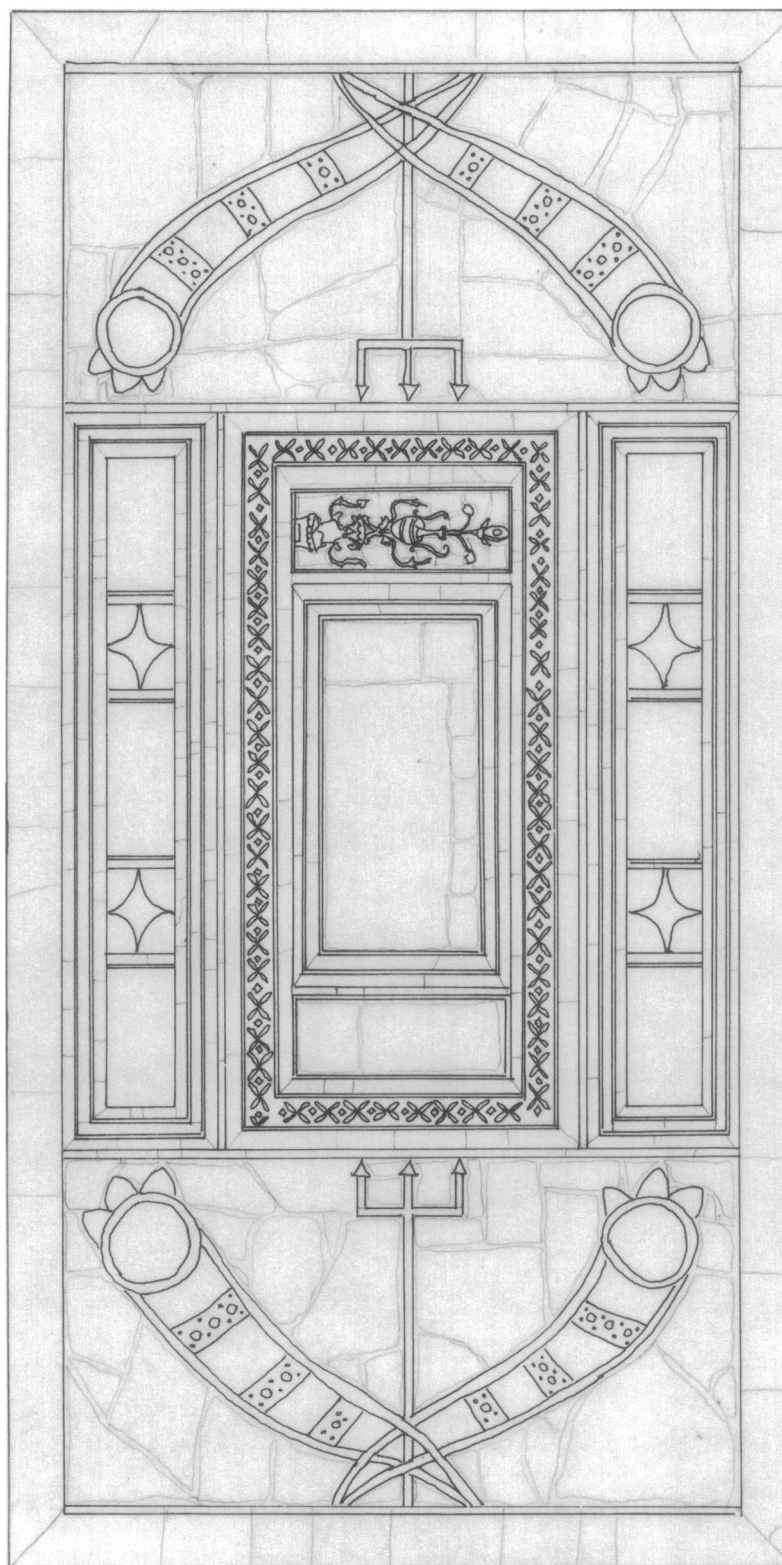

13.   *Opus sectile*, panel 17, drawing

14. *Opus sectile,* panel 6

15. *Opus sectile,* panel 16, detail of spoil (photo: Ljubica Šonje)

16.   *Opus sectile,* panel 16, drawing

17. *Opus sectile*, panel 7
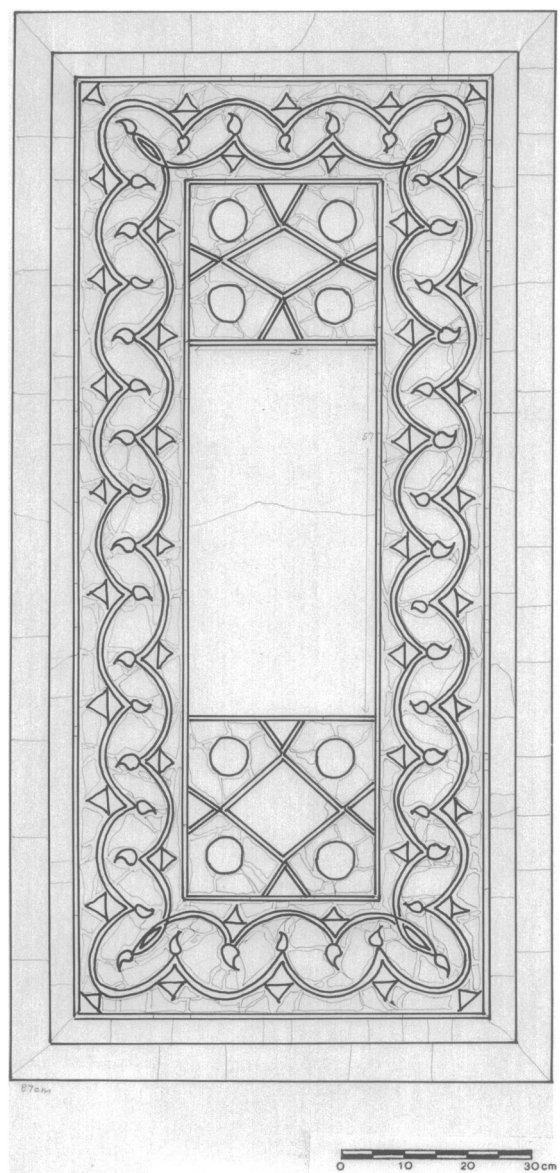
18. *Opus sectile*, panel 15, drawing
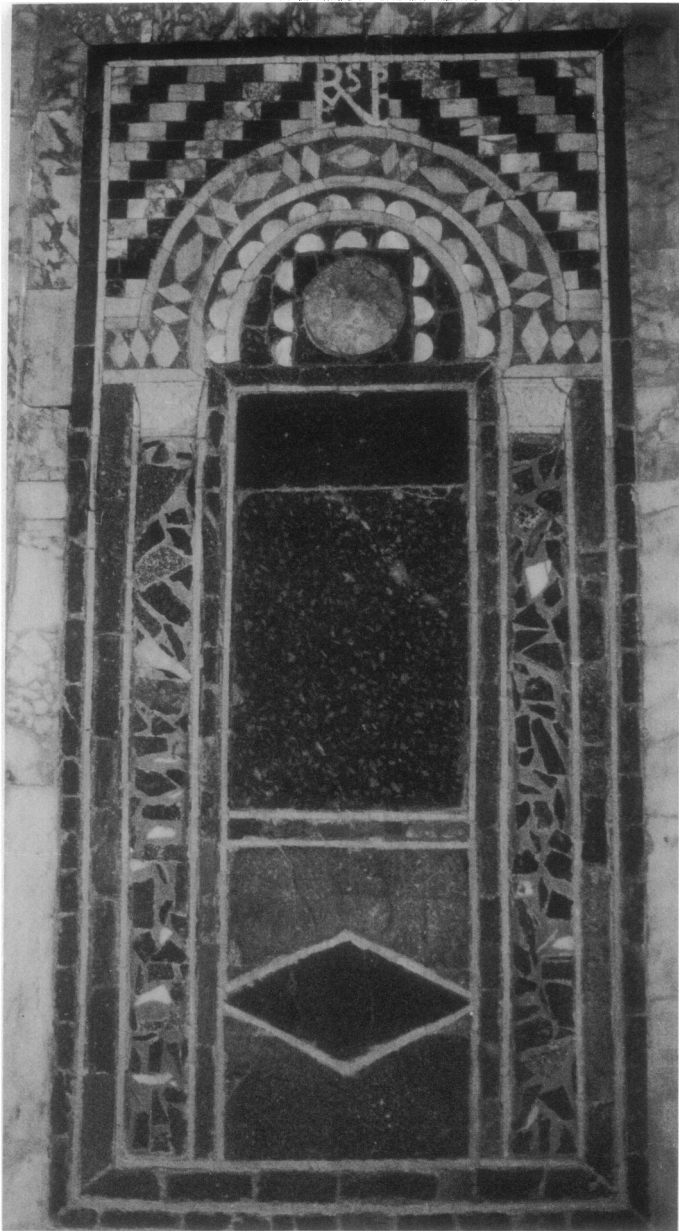
19. *Opus sectile,* panel 8
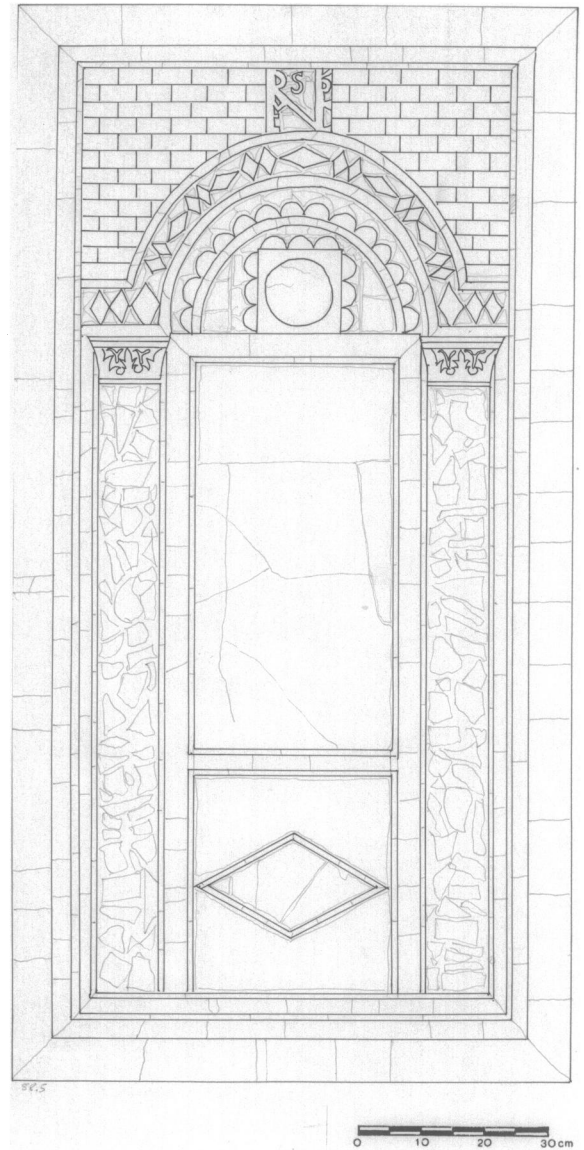
20. *Opus sectile,* panel 14, drawing
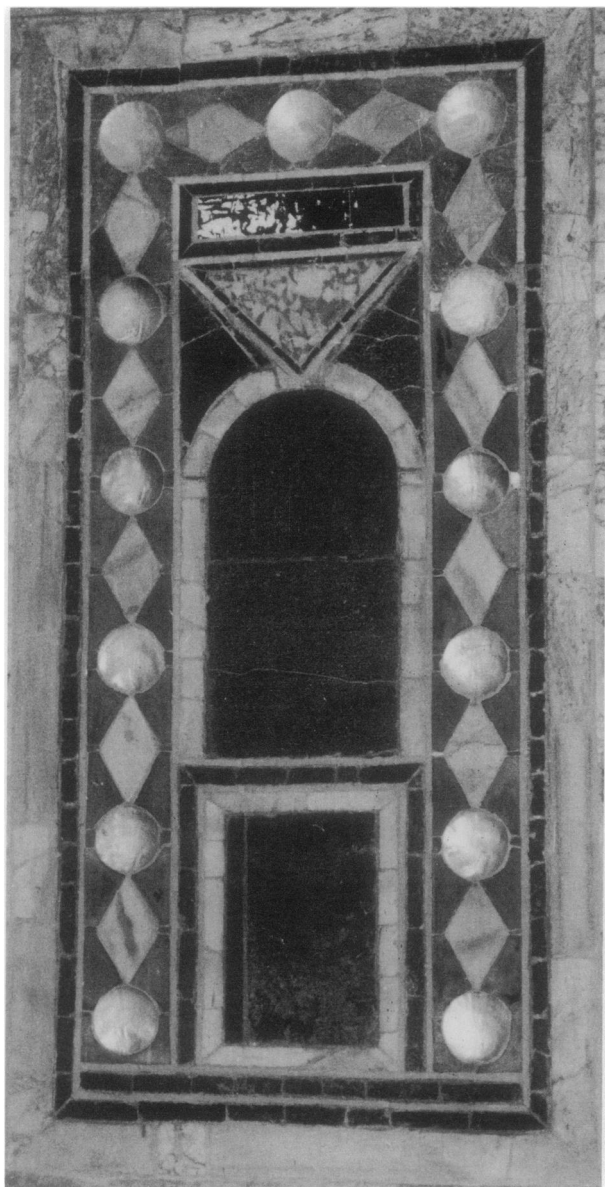
21. *Opus sectile,* panel 9

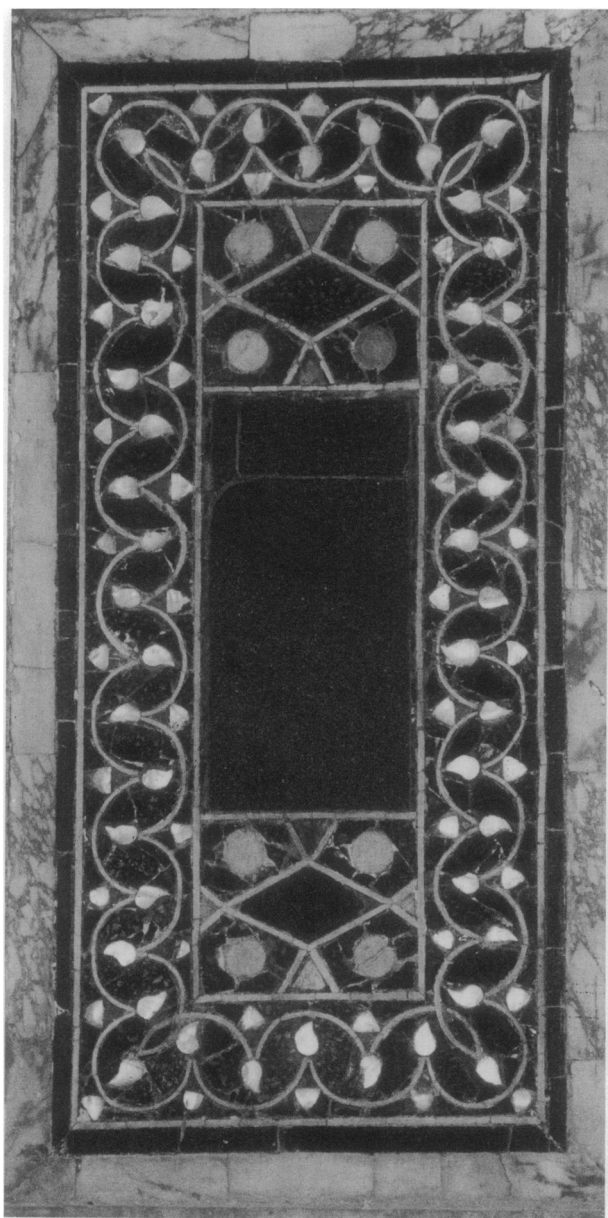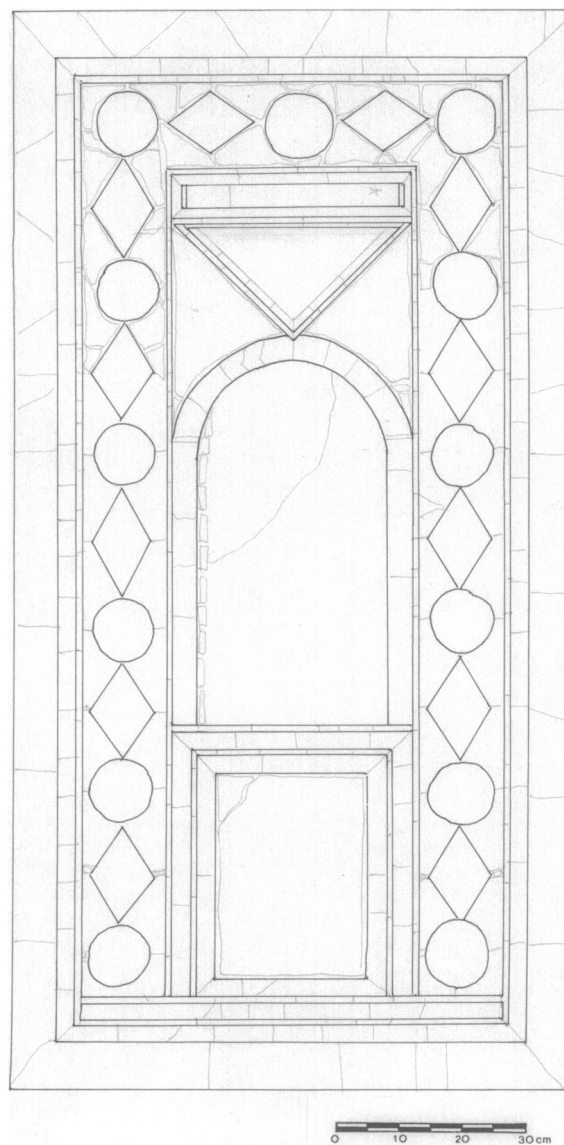22. *Opus sectile,* panel 13, drawing
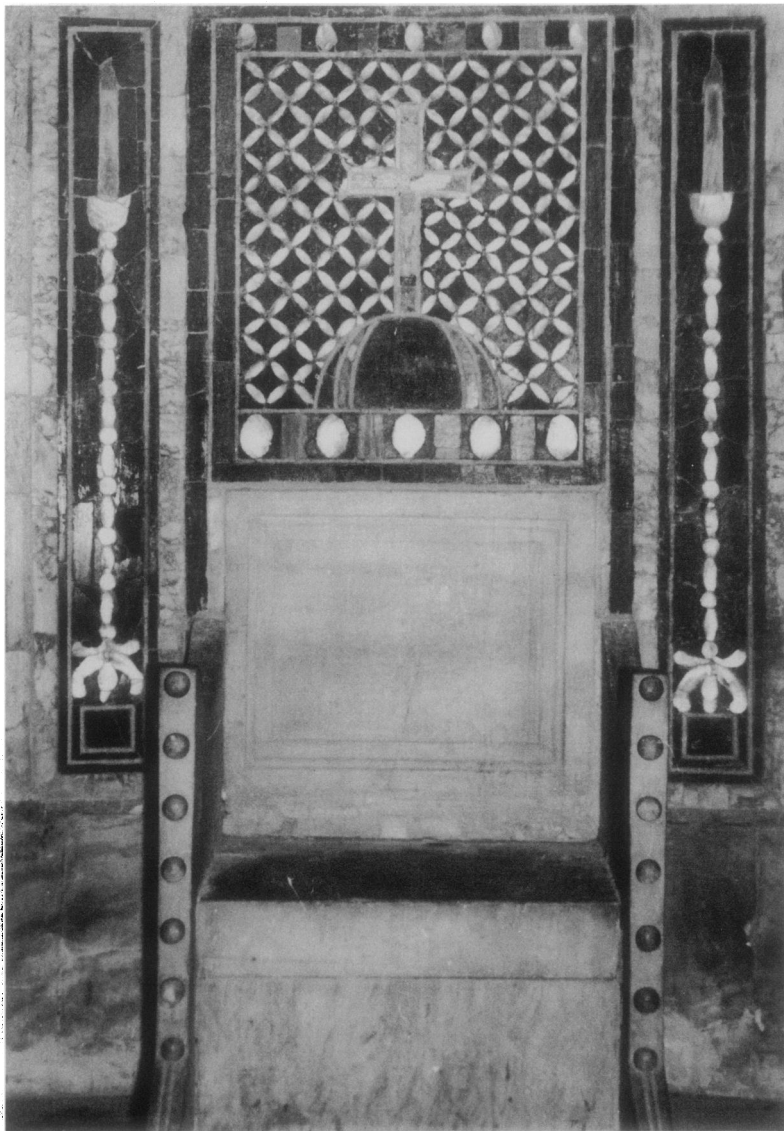
23. *Opus sectile,* panels 10, 11, and 12

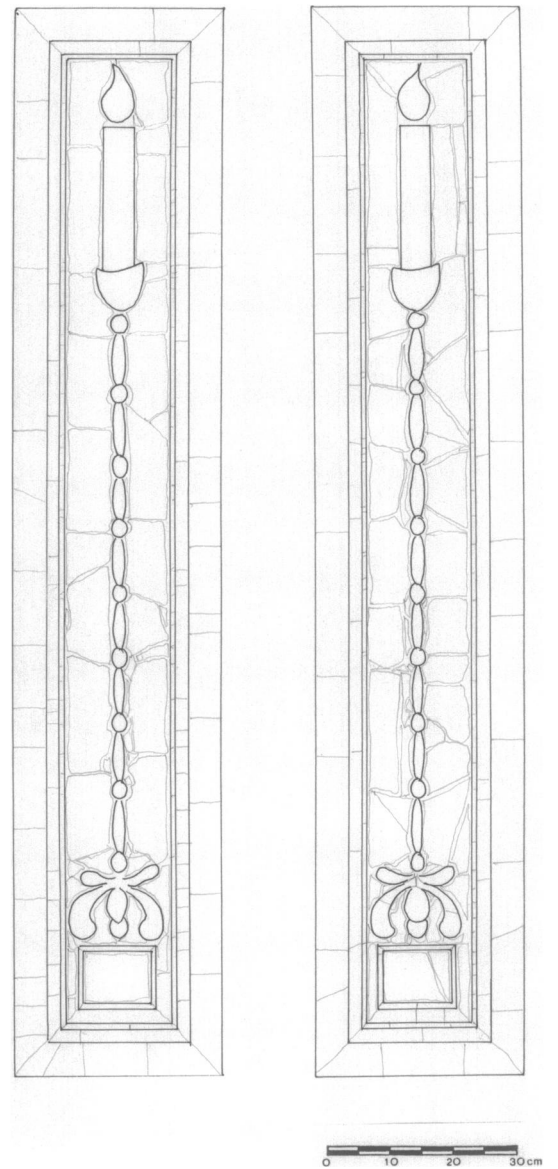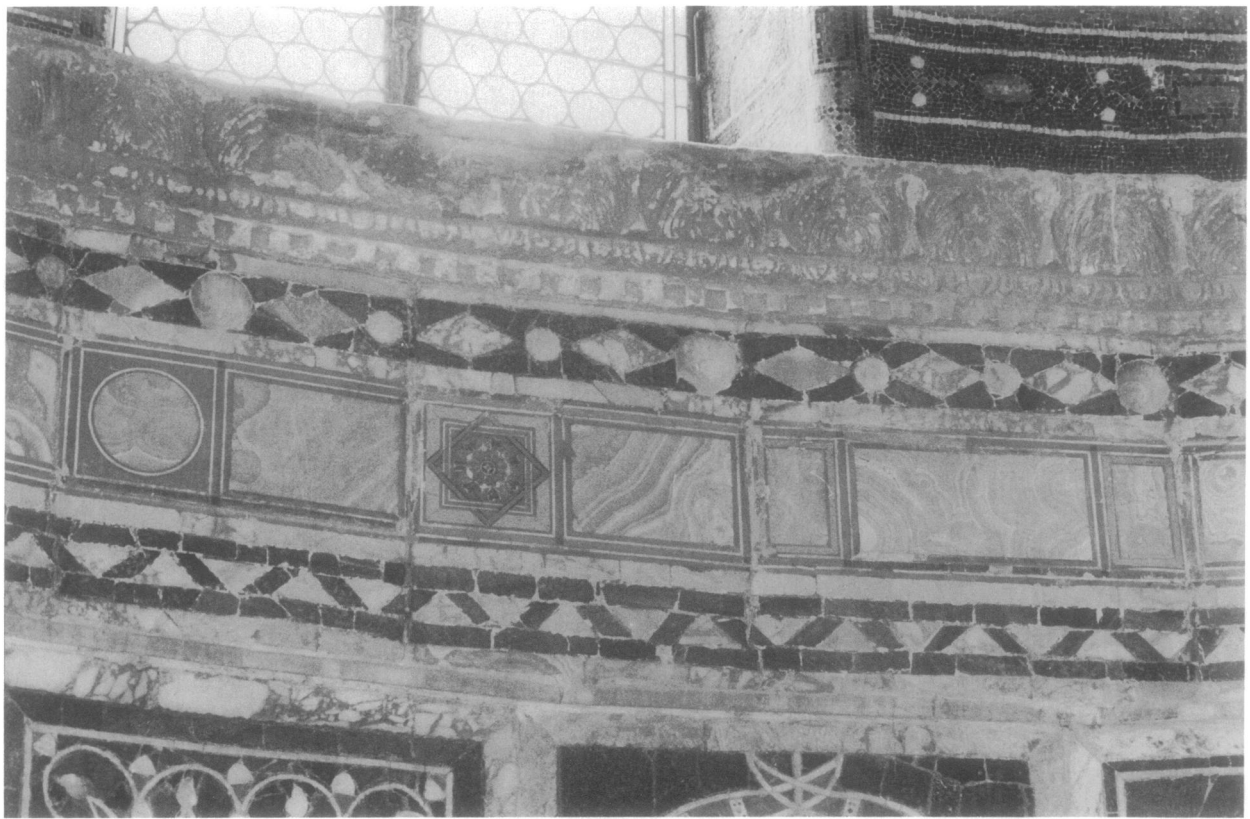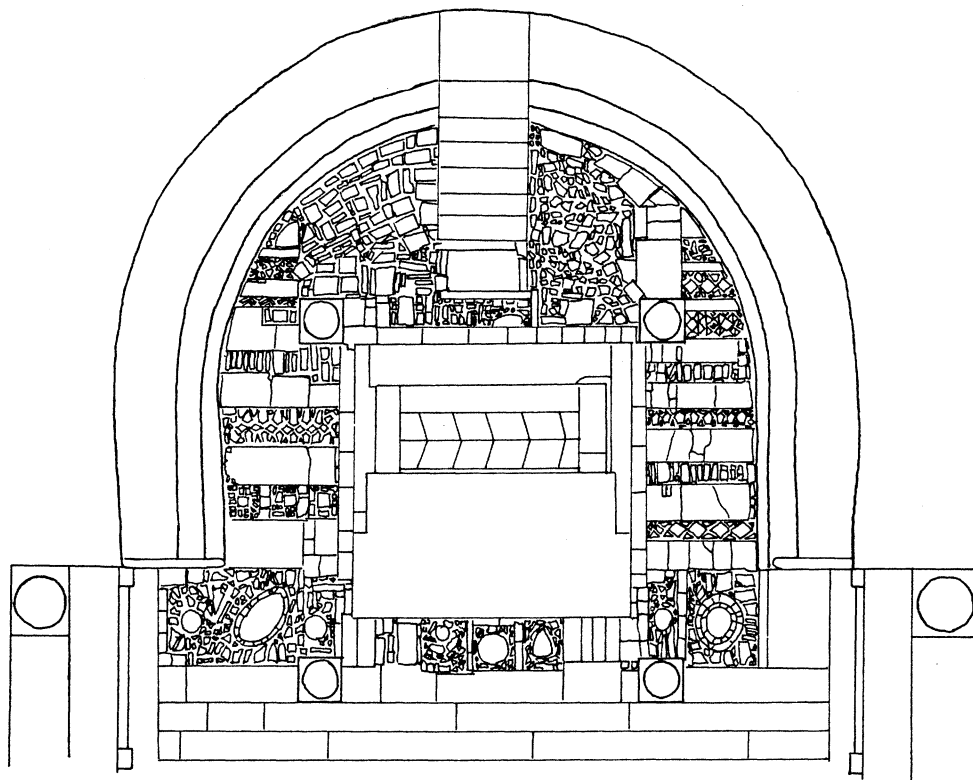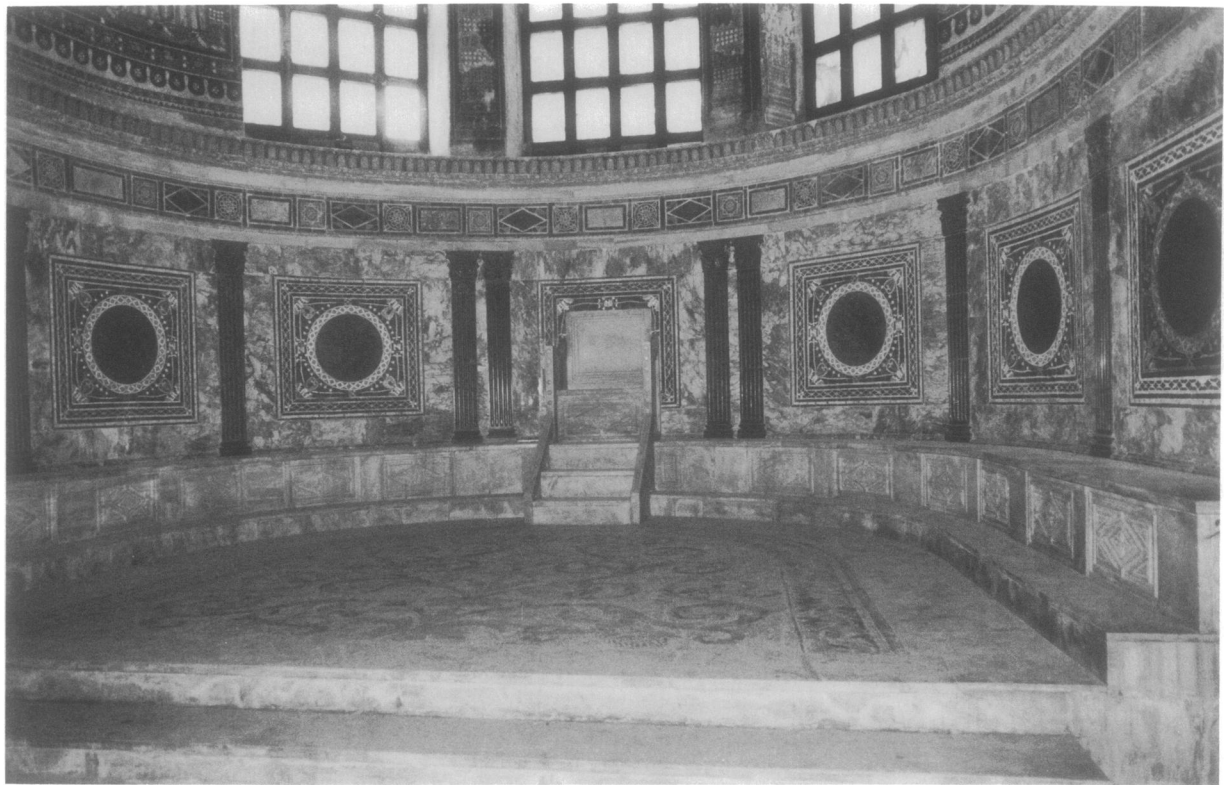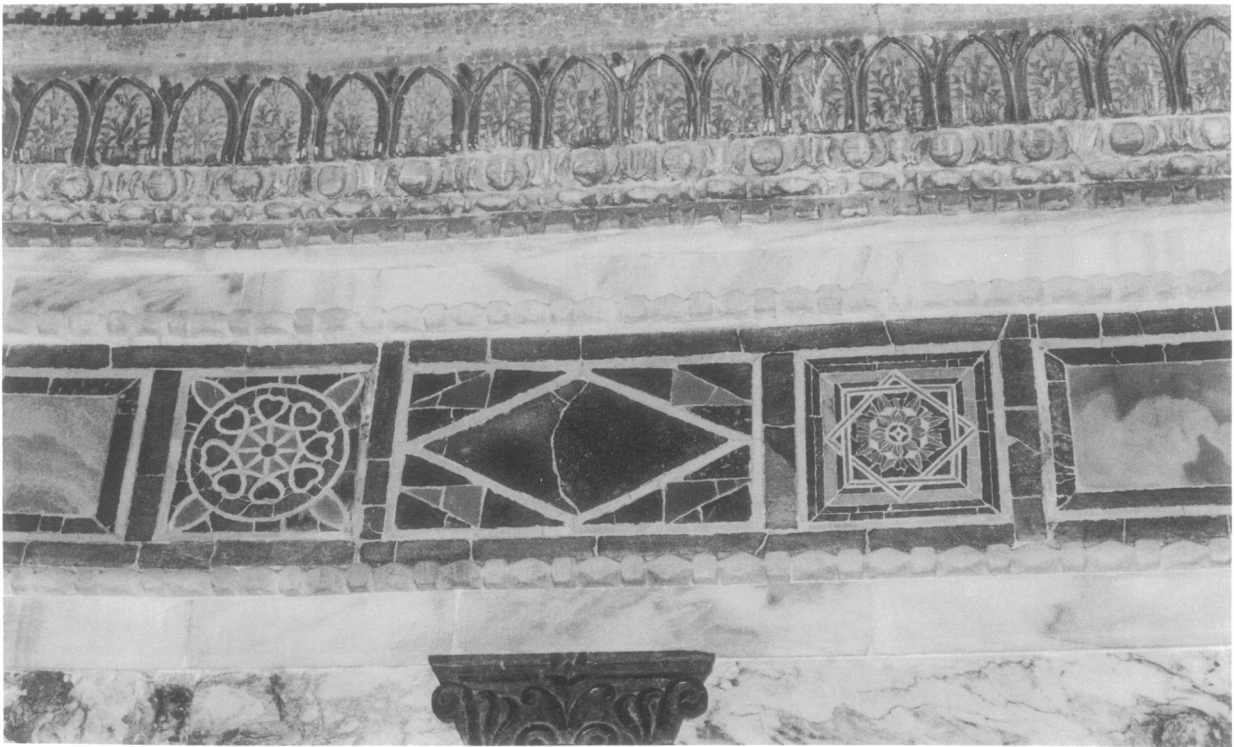24. *Opus sectile,* panels 10 and 12, drawing

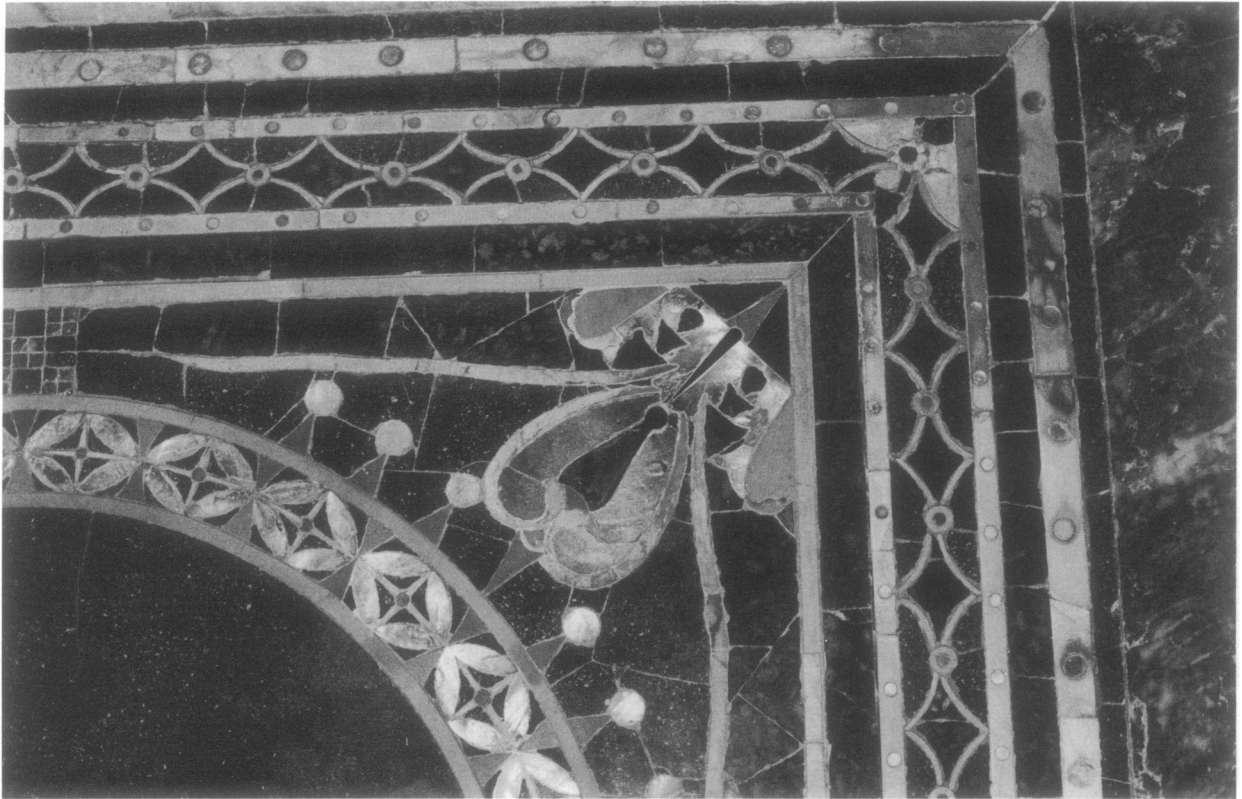25. *Opus sectile*, upper register

26.　Apse pavement, drawing

27.   Ravenna, S. Vitale, *opus sectile* in apse

28.   Ravenna, S. Vitale, *opus sectile* in apse, detail of upper register

29. Ravenna, S. Vitale, *opus sectile* in apse, detail of main panel

leaves; at the center is a circle inscribed with a small curvilinear square. This central circle motif appears to be identical to the type used in the floret border in panel set 6/16. A series of borders surrounds the interlocking squares: (1) wide yellow, (2) narrow rose, and (3) narrow white. The panels of the central band are enclosed above and below by a narrow blue border, which itself is enclosed above and below by two outer borders: (1) narrow white and (2) rose.

Framing the principal frieze are continuous ornamental borders above and below. In the top band a lozenge-and-circle pattern in light-colored marbles (giallo antico, Proconnesian) and mother-of-pearl is set within a green porphyry background. Outer borders of giallo antico (below) and Proconnesian (above) run along both edges. The circle-and-lozenge pattern provides a regular sequence of a–b–c–b–c–b–a, in which "a" equals a half shell of mother-of-pearl, "b" a lozenge in a light-colored marble, and "c" a small circlet in a light-colored marble.

The lower band consists of light-colored marble triangles placed alternately right side up and upside down on a green porphyry background. This band is also sandwiched by two light-colored marble borders.

3. Apse Pavement[30]

The floor of the apse is also covered with *opus sectile*, using many of the same materials as those used in the wall decoration; however, Proconnesian, cipollino rosso, and red and green porphyry predominate (Figs. 2, 3, 26). If any part of the apse floor retains aspects of the original, it is almost certainly a chance survival. The apse has been raised, and the many remodelings and restorations have taken a heavy toll in this area.[31]

The *sectile* work in the pavement may be divided well into four parts: (1) a broad strip to the west of the altar which runs the width of the apse, (2) the areas to the north and south of the altar, (3) the area to the north of the cathedra, behind the altar, and (4) the area to the west and south of the cathedra.

In area 1, several large discs or oval-shaped slabs of red porphyry and giallo antico(?) act as princi-

pal pieces, drawing around them a variety of smaller and, usually, irregularly cut pieces in a variety of marbles. Most interesting, two of the three self-contained panels directly in front of or west of the altar feature pictorial elements. The central motif, a simple circle with triangular darts at the four "corners," appears to be solely decorative.[32] The panels to either side, however, are of a different type. The north panel portrays a wide-brimmed hat, behind which is a cross.[33] This may represent a cardinal's hat. On the right is a bishop's miter (or papal tiara?). In view of the fact that neither form of headgear existed in the Early Christian period, and since the technique and size of the two pictorial panels are the same, it is likely that they are later additions.

Area 2, north and south of the altar, probably retains some vestige of its original design. Here the floor space is divided into a number of horizontal bands (seven to the south, five to the north). Bands entirely in Proconnesian alternate with bands in which simple geometric designs are executed in Proconnesian, cipollino rosso, and green and red porphyry. The geometric patterns are frequently unevenly laid or inconsistent in details.

The last two areas consist of haphazard arrangements of a wide variety of materials—irregular pieces and, by the look of them, scraps. North of the cathedra, area 3 is characterized by square or rectangular slabs of white and green or gray-green (list, no. 18),[34] while area 4, directly in front of and to the south of the synthronon, is entirely filled in with irregular pieces of miscellaneous materials—marbles, limestones, and others (many one of a kind)—arranged in no discernible pattern.

4. Materials

In his choice for the litany of marbles at H. Sophia, Paul the Silentiary referred to the same marbles repeatedly praised by late antique authors.[35] The marbles at Poreč correspond to the literary preferences. Distinguishing these panels from other sets, however, are the extremely rich selection of marbles and the diversity of additional materials. Some thirty marbles, ten colors of glass,

[30] For a general study of *opus sectile* floors, see H. Kier, *Der mittelalterliche Schmuckfussboden unter besonderer Berücksichtigung des Rheinlandes* (Düsseldorf, 1970).

[31] The apse was raised in the thirteenth century; for this and other alterations, see Terry, *Eufrasius Cathedral*, 11 ff.

[32] This design is reminiscent of that used in the center of panels 5 and 17 and similar to one of the motifs in the upper register at S. Vitale.

[33] These are especially readable in pl. 21 in C. Errard and A. Gayet, *L'art byzantin d'après les monuments de l'Italie, de l'Istrie et de la Dalmatie*, II (Paris, 1901–3).

[34] See note 54 below.

[35] Mango, *Art of the Byzantine Empire*, 85–86.

and a host of other materials (mother-of-pearl, ivory, plaster) appear in the panels and the apse pavement.[36] Listed below are the main identified marbles, the secondary and unidentified (or tentatively identified) marbles and stones, the glasses, and the other materials.[37]

a. Identified Marbles

1. Lapis porphirites (porfido rosso, red porphyry) was the Roman stone par excellence.[38] It was quarried at Gebel Dokhan in Upper Egypt until about 450. During the late antique period, as one of the most costly and prestigious stones, it was reserved for imperial use. The stone has a dark red ground, evenly spotted with small white crystals. Both this and the green porphyry below were used in two ways at Poreč: as large circular or rectangular slabs around which the designs were focused and as irregularly cut pieces used for background fill.

2. Marmor Lacedaemonium (serpentino, green porphyry) derived its name from the quarry site in Laconia, Greece.[39] The rich emerald green stone is speckled with variously shaped white or light green crystals.

3. Marmor Proconnesium (Proconnesian) was quarried on islands of the same name in the Sea of Marmara, near modern Istanbul.[40] This white marble with blue-gray veins was exported extensively from the first through the sixth centuries. Proconnesian was one of the primary marbles used by the early Byzantines. In the Poreč *opus sectile* it was reserved for some borders and used for secondary design elements in the upper and lower decorative friezes of the upper register and in panel set 6/16. In accordance with the usual practice, a large proportion of the apse floor consisted of this marble.

4. Marmor Synnadicum (pavonazzetto) was quarried at the village of Docimea near Synnada in the interior of Phrygia.[41] It was very highly valued by the Romans. Pavonazzetto has a creamy opal-like base with veins in a variety of red and yellow hues. The name comes from the deep red of some varieties. At Poreč it was used for border pieces and for shaped pieces used as secondary design features.

5. Marmor Numidicum (giallo antico) originated in Numidia, in northern Africa near modern Chemtou in Tunisia.[42] At Poreč this golden-toned marble with reddish-colored veins was used primarily in shaped pieces.

6. Marmor Iassense (Carium, cipollino rosso, or—a misnomer—Africanone) also draws its name from a quarry site—the island of Iasus along the coast of Caria in Asia Minor.[43] It appears to have been quarried primarily in the sixth century. In cipollino rosso a deep "blood-red," as Paul the Silentiary described it, contrasts with brilliant white and deep purple veins.[44] Most of the surviving marble revetment on the piers at S. Vitale in Ravenna is cipollino rosso. In Poreč it seems to have been used mostly in the pavement of the apse.

7. Rosso Verona (red Veronese) marble was local to Italy, produced at several quarries near Verona.[45] It appears in discs in the main panels and in the apse pavement. The variety used at Poreč is a medium orange with a nobby-textured surface.

8. Alabastro cotognino (marmo onice, alabaster) is a translucent white to yellow with veins of gray and tan, quarried in Egypt.[46] Its use at Poreč was limited to panel set 6/16 and the upper register.

9. Marmor Celticum (bianco e nero antico) is a black marble, crisscrossed with vivid white veins. Quarried in Aquitania, near modern Aubert and St. Geron, France, primarily in the late antique pe-

[36] I have not used the word marble in its strict geological meaning. Certain of these stones, the porphyries, for example, geologically are not marbles.

[37] This is the first attempt to identify specifically the marbles at Poreč. Several sources were used in this process. Most important among them is R. Gnoli, *Marmora romana* (New York, 1971) with full discussions, bibliography, and excellent color plates. I am grateful to R. M. Harrison for leading me to this book. Although it treats a limited number of marbles, G. Becatti, *Scavi di Ostia*, VI: *Edificio con* opus sectile *fuori Porta Marina* (Rome, 1967), also has excellent color illustrations. M. Pieri, *I marmi d'Italia* (Milan, 1950), treats a wide variety of Italian marbles, offering adequate illustrations. His summary of ancient marbles on pp. 13–31 is helpful.

[38] Gnoli, *Marmora*, 98–108.

[39] Ibid., 155–88.

[40] Ibid., 208–11.

[41] Ibid., 141–43.

[42] For a discussion, see Gnoli, *Marmora*, 139–41. The identification was made on the basis of color photographs in Becatti, *Scavi*. See also J. Ward-Perkins, "Tripolitana and the Marble Trade," *JRS* 41 (1951), 89–104. The giallo antico in panel 4 differs significantly from that in panel set 3/19. The former is a deep yellow, mustard-colored stone with occasional veil-like veins in a deep red but with no apparent crystalline surface. The latter is a pale cream-colored stone with large veins. I am extremely grateful to Amanda Claridge of the British School at Rome for her help in the identification of giallo antico and pavonazzetto.

[43] Gnoli, *Marmora*, 208–11.

[44] Mango, *Art of the Byzantine Empire*, 86.

[45] Pieri, *Marmi*, 169, 183, and tav. xx.

[46] Gnoli, *Marmora*, 186 ff.

riod,[47] it was a familiar component among marble programs of the Justinianic period. A few fragments of this marble appear in the apse floor and the main panels.

b. Unidentified Marbles and Stones[48]

10. Off-white marble with large areas of a flat medium gray; see the profiled border in panel 4.

11. Dark red marble with lighter-colored veins. Several pieces of this were used in the "jeweled" columns in panel 8.[49]

12. Black marble with evenly placed white crystals. Several "odd" pieces may be seen in the columns in panel 8.[50]

13. Black marble with fibrous white veins enhanced by areas of a creamy green color; see odd pieces in panel 19 or the first patterned strip to the west of the southeast ciborium column.[51]

14. A marble which, although it is basically black, has large areas dappled with white. It was used in the pavement of the apse, to the west of the wooden cover in front of the cathedra.

15. A marble which has substantial areas of white and light brown, along with inclusions in black; see the triangular insets in panel 4.

16. Marble consisting of areas of black, gray, and white, highlighted by a deep rose color; see panel 8.[52]

17. A gray-and-red marble with white veins which was used in the apse pavement.[53]

18. A marble characterized by fairly rigid, parallel stripes of green, gray-green, and white. It was used extensively in area 3 of the apse pavement. In all probability, this is marmor Carystium (cipollino,

marmo di caristo) quarried near Carystus on the island of Euboea along the east shore of Greece.[54]

19. Light brown marble with little color variation; see the candles in panel set 10/12.[55]

20. A light brown, gray, and white marble marked by very elaborate curving and swirling "baroque" veins and colorations. It was used in the outer borders of panel set 6/16 and panel 17.[56]

21. A black marble with curving-patterned colorations in light brown and white (but they are much less elaborate than those in no. 20). The white is more prevalent; see one piece (13 × 32 cm) used in the pavement to the south of the northwest ciborium column.

22. A gray marble with dark purple veins; it was used in the outer border of panel 1, at the bottom left side.

23. A shiny black, onyxlike stone, which appears in the apse floor between the wooden cover in front of the cathedra and the first step to the altar platform.[57]

24. A light yellow marble with a creamy and evenly colored surface which was used in the apse floor to the east of the northwest ciborium column.[58]

25. A light orange marble which is fairly evenly colored; a disc is used in back of the southwest ciborium column.

26. Orange marble with purple veins. A disc (24.5 cm) forms part of the pavement of the apse, to the east of the northwest ciborium column.

27. A pink marble with swirling veins of red and purple appears once in the apse floor, to the east

[47] Ibid., 169 ff.

[48] The long and inconclusive list of unidentified stones is included for the sake of documentation. These materials survive in very small fragments and/or poor states of preservation. Despite the able assistance of geologists from the University of Illinois, it was not possible to identify them.

[49] This could be a variant of cipollino rosso.

[50] A possible identification is porfido nero from Gebel Dokhan in Egypt; see Gnoli, *Marmora*, 122 ff.

[51] Possible identifications are: (1) verde antico—see Gnoli, *Marmora*, pl. 118; (2) marmo bianco e nero tigrato—ibid., pl. 202; (3) bigio antico from Asia Minor—ibid., pl. 201; or (4) verde alpi from Aosta—Pieri, *Marmi*, tav. xxviii.

[52] Possible identifications are: (1) rosso brecciato or marmo di Caria from Asia Minor—see Gnoli, *Marmora*, pl. 245; (2) breccia pavonazza, also from Asia Minor—ibid., pl. 248.

[53] Two pieces were used in the inside circular border of the first large square panel from the west on the south side of the apse (southwest of the southwest ciborium column).

[54] One is tempted to link the use of cipollino in "replacement pieces" in the apse floor to a similar material reveting the wall of the main apse at S. Giusto in Trieste, work of the nineteenth century; see G. Cuscito, *Trieste: La basilica di S. Giusto* (Bologna, 1978), 21, fig. 13. Another marble with a very similar appearance is cipollino Carrarese or zebrino; see Pieri, *Marmi*, tav. xxvi. His description (p. 15) suits the Poreč marble very well: "Ha tessuto compatto, struttura macrocristallina come il pario, colore di un bianco scuro tendente al verdognolo con veni lunghe e parallele ora più strette, di color grigio carico."

[55] Possible identifications are: (1) pietra di Trani—see Pieri, *Marmi*, tav. xiv; or (2) alabastro dorata—Gnoli, *Marmora*, pl. 236.

[56] A possible identification is travertino di Rapolano antico venata—see Pieri, *Marmi*, tav. xiii. Marble 20 is similar to that used for the hills and a tree in the tiger panel at the Basilica of Junius Bassus; see Becatti, *Scavi*, pl. 81, 1.

[57] Possible identifications are: (1) nero di Cazzaniga—see Pieri, *Marmi*, tav. xxx; or (2) nero di Varenna or grande antico d'Italia—ibid.

[58] A possible identification is giallo di Siena—see Pieri, *Marmi*, tav. xviii.

of the northeast corner of the northeast ciborium column.[59]

28. A gray (granite?) stone was used, in conjunction with Proconnesian, for the apse pavement and the steps to the apse.

29. Pink, (30) yellow, and (31) white creamy, opal-like stones (alabaster?) with fairly even coloring compose the candelabra in panel set 6/16.

c. Glass[60]

1. Turquoise blue semiopaque glass. See, for example, panel set 4/18. Some of this glass appears to have deteriorated. It has an uneven surface texture and uneven colorations. The turquoise blue glass used in set 6/16 is a different glass. It has a more even texture and coloration.

2. Deep blue semiopaque glass. Used as the background for the monogram of Eufrasius in panel set 8/14.

3. Blue-green semiopaque glass. See panel set 4/18.

4. Lime-green semiopaque glass. See panel set 4/18.

5. Medium green semiopaque glass. See panel set 4/18.

6. Dark green semitranslucent glass. See panel 2.

7. Deep orange opaque glass. See panel 6.

8. Yellow opaque glass. See panel 11.

9. Black transparent glass with white swirls forming concentric rings. See odd pieces in panel 18.

10. Clear sheet glass, modern. See panels 9, 11, and 13.

d. Other Materials

1. Mother-of-pearl was used extensively for highlights in the Poreč panels.

2. Ivory (bone?). See some of the very narrow borders in panel set 6/16.

3. Istrian limestone. The local white limestone was used in odd pieces in the apse pavement and, together with red Veronese, in the checkerboard design on the modern altar platform.

4. Medium brown-colored stone(?). See the apse floor, northeast section, area 3.

5. White stone(?). As noted, this unidentified material was the main material used in the narrow outlining of basic design components in all the panels.

6. Rose stone. See panel set 6/16 and the upper register.

7. White stone. The petals in the floret border in panel set 6/16 were made from this material.

8. Gold paint. See the cross in panel 11.

5. Technique

The individual pieces of marble and other materials were cut in a variety of ways: pieces were cut for a specific role in a design, pieces were cut in simple geometric shapes for general use in designs, border pieces were cut in narrow rectangular lengths, and, finally, irregularly cut pieces were used as background fill. In the few places where it is possible to measure individual pieces, the following was observed. The depth of the outer border pieces ranges from 1.6 cm to 4 cm, with an average of just over 2 cm.[61] The pieces within the panel average between 7 mm and 1 cm in thickness. Where pieces are missing from the panel, the depression left behind is generally about 9 mm to 1 cm deep. Therefore, the surface layer of adhesive would have been between 2 and 3 mm thick.

While there are obvious limits to what can be observed about the process of setting the panels, it is nevertheless possible to suggest certain procedures on the basis of surface treatment and what is revealed in those areas with missing pieces. The setting bed for the entire panel is unknown.[62] A three-

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[59] Possible identifications are: (1) corallo rosa della Garfagnana—see Pieri, *Marmi*, tav. XXII; or, more likely, (2) alabastro a pecorella from Algeria—Gnoli, *Marmora*, pl. 230. A very similar marble is used in the outer border of the main panels at S. Vitale.

[60] The opacity of the glasses varies greatly from one spot to another.

[61] It is possible to measure the outer border pieces along the west sides of panel set 1/21. In general, these measurements do not conflict with the measurements given by R. M. Harrison and M. V. Gill for the numerous fragments excavated at the site of H. Polyeuktos, a 6th-century church in Constantinople (*Excavations at Saraçhane in Istanbul*, I [Princeton, 1986], p. 1 of chap. 6). See R. M. Harrison, "Anicia Juliana's Church of S. Polyeuktos," *JÖB* 32/4 (1982), 435–42. I am grateful to R. M. Harrison for giving me a copy of his chapter on the *opus sectile*. The measurements at Poreč, however, are quite different from those reported for some of the *opus sectile* panels at H. Sophia; see Underwood, "Notes," 206.

[62] Slate and a thick layer of adhesive were used at H. Sophia. Underwood ("Notes," 206) stated that the design was set in a "very hard adhesive bedding, about 4 cm thick and of a brown color, which is made of a compound of resin or pitch and what we believe to be marble dust. This bedding is backed by pieces of slate which bring the total thickness of the panel to between 6 and 7 cm."

part backing can be observed in panel 2, where a half shell of mother-of-pearl is missing. The lowest visible layer is a light gray plasterlike substance. Covering that is a second layer, a darker gray plasterlike substance which, in this location, has been applied in two distinct coats. These two layers apparently formed a bed for the pieces of glass and marble. The individual pieces were set into the panel and joined to one another by means of a third and surface adhesive, which survives in a variety of colors (red, dark red, dark green, blue, gray). In some places it appears that the colors were matched to the materials they connected. For example, the rust and red surface adhesives are often found between places of red porphyry. Many of the panels exhibit this use of colored adhesives, but its use is not absolutely consistent.[63] Such pigmentation may be modern, perhaps a nineteenth-century "improvement."

The main panels were apparently produced individually, as in the case of the panels discovered at Kenchreai, and then later set into the curve of the apse.[64] Each was placed at an angle slightly oblique to the next, so that the panels form a multifaceted polygon that approximates the curvature of the apse. Similarly, the upper register panels were set into the curve of the apse in groups of between two and four motifs. At the beginning and at the end, however, before the curve of the apse becomes acute, the groups number between five and seven motifs. The lower edges of the main panels are bound to the top of the synthronon with what appears to be a pebble-filled mortar.

B. Discussion

Traditionally, the *opus sectile* at Poreč has been closely linked to that at H. Sophia in Istanbul and S. Vitale in Ravenna. W. R. Lethaby and H. Swainson perceived an immediate relationship between the five panels over the Royal Door at H. Sophia and the *sectile* at Poreč: "these panels at Parenzo are so much like those of S. Sophia that we do not doubt they were sent from Constantinople."[65] Although such a direct relationship may now seem overly simplistic, conventional wisdom still draws a link between the *opus sectile* in Constantinople, Ra-

venna, and Poreč. To a certain extent, such opinions are justified, for it is not at all difficult to find in the Poreč panels similar materials, as well as technical and decorative reflections of the *opus sectile* in Constantinople and Ravenna. However, a close analysis of the panels at Poreč determines that not all of these appearances are rooted in reality.

A comparison of the Ravennate and Parentine inlay must take into consideration the fact that the panels at S. Vitale have been heavily restored.[66] The original *opus sectile* at S. Vitale was executed at the latest by 548, when Maximian finished the church. The panels themselves carry the monogram of Julianus Argentarius, the wealthy Ravennate banker who donated funds for the church, possibly as early as the 530s. Even if it were possible to pinpoint the date on which certain materials were imported, it would still be difficult to determine if, or for how long, they sat in Ravenna before use. As at Poreč, the S. Vitale panels cover the lower apse wall (Fig. 27). The two groups of panels share several features, the most important of which are a three-part disposition (main panels and an upper register crowned by a stucco molding) and material—many of the same materials appear in both places.[67] Most strikingly, very similar interlocking square motifs appear in both upper registers. Each measures exactly 24 cm square; each functions as one of a number of alternating motifs. With the exception of the fact that the backgrounds of the central rosette design differ (rose stone at Poreč and red porphyry at S. Vitale), the colors and designs are closely matched. Eliminating for the moment the nineteenth-century spit and polish from the Ravennate example (Fig. 28), there is no doubt that the two groups of motifs are very closely related.[68]

The differences between the inlay at S. Vitale and the Eufrasiana, however, are more important than the features they share in common. At S. Vitale all the large panels are identical, their designs are strictly ornamental, and they have an internal symmetry that is obviously the result of meticulous

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[63] The adhesive used in panel set 1/21 (around the small circles and diamonds in mother-of-pearl), in the columns of panel 8, and in the upper and lower decorative bands in the upper register is a gray (cement-colored) grainy substance.

[64] For the panels at Kenchreai, see above, note 13.

[65] Lethaby and Swainson, *Sancta Sophia*, 243.

[66] Deichmann, *Ravenna*, II.2, pp. 59, 118–35. See also M. D. Bardeschi, *Ravenna, la biblioteca Classense I: La città, la cultura, la fabbrica* (Bologna, 1982), which records the diary of the restoration efforts directed by C. Ricci. See pp. 220 ff and the illustrations on pp. 234–35 and 239.

[67] All the main marbles used at Poreč, as well as most of the "secondary" or less often used marbles, appear in S. Vitale.

[68] The motif appears ten times in a regular sequence as part of the upper register of the *opus sectile* at S. Vitale (ABCDABC, etc., ending in A). Interestingly enough, the same motif is in the apse mosaics at S. Vitale, as an insignia on Theodora's robe and in the tablecloth in the scene of the offering of Abel and Melchizedek.

planning and very competent execution. The same may not be said about the Poreč panels. Among the eleven remarkably different designs, over half contain pictorial elements; several make no attempt at symmetry; and the designs of panel sets 8/14, 9/13, and 6/16 are awkward and poorly balanced. Turning to the motifs in the upper register, especially the interlocking squares, those at S. Vitale appear in a regular sequence, while those at Poreč adhere to no strict pattern. The Eufrasiana panels, however imaginative, can be accused of neither sophistication nor strict symmetry.

The intricate designs at S. Vitale incorporate an elaborate and rich variety of motifs and patterns (Fig. 29). For example, the floret border surrounding the central disc in the main panels contains several secondary motifs in a mixture of materials and colors. By contrast, the simple and bold designs used at Poreč carry, for the most part, a minimum of motifs and shapes. The Ravennate work features multiple borders, often "jeweled" (inlaid with circlets of mother-of-pearl) or crisscrossed with secondary designs. The bordering technique at Poreč is far simpler. There, single, plain borders define major elements. The only repetitive and intricate borders at Poreč, in panel set 6/16 and throughout the upper register, may be identified as spoils. The elaborately conceived and finely executed designs at S. Vitale stand in stark contrast to the relatively large, minimal design components at Poreč.

Paradoxically, the strongest link between the two sets—the use of similar materials—is at the same time the weakest. Both churches use a wide variety of materials. The hierarchy of materials at S. Vitale, which reserves marbles and porphyries for prominent positions and relegates glass and other materials to strictly minor roles, is absent at Poreč, which, by contrast, represents a materials free-for-all. Although porphyries occupy key positions in the designs at Poreč, this appears to have been the case because only those stones were available in such large units. Other materials were used at Poreč whenever a space could be made. In particular, the use of mother-of-pearl sets the Poreč work apart from that at S. Vitale where only small amounts of mother-of-pearl appear. At Poreč, where numerous full half shells are used, it is one of the most important material components in the panels.

A comparison between the Poreč panels and those at H. Sophia follows a similar line. Built between 532 and 537, Justinian's magnificent church retains vast stretches of its marble meadows as well as a variety of *opus sectile* work. Here design format

is seen as the most salient point of comparison. Of the *opus sectile* at Poreč, only one border, two main panel designs, and certain individual motifs may be said to have counterparts at H. Sophia. A decorative border composed of circle-and-lozenge motifs which runs across the upper apse wall at H. Sophia is very close to a similarly composed and positioned decorative border in the upper register at Poreč.[69] However, the appearance of such a simple border in two contemporary buildings could easily be considered coincidental.

Of the main panels at Poreč, only set 3/19 and panel 11 have designs that resemble full panel designs at H. Sophia. An inscribed lozenge with a wave-crested palmette, the design in set 3/19, appears in several gallery-level main panels at H. Sophia.[70] It is important to note, though, that elements such as an inscribed lozenge and a wave-crested palmette were common in the decorative vocabulary of Late Antique and Early Byzantine art in various media.[71]

The cross in panel 11 at Poreč has been related to a panel with a cross at H. Sophia. Both compositions refer to the cross on Golgotha, and both panels claim prominent positions in their respective churches. At Poreč, panel 11 marks the easternmost point in the basilica and is positioned directly over the cathedra; at H. Sophia, the cross panel is the focus of a series of panels above the west door of the church. Nevertheless, these two panels differ in several important respects. At H. Sophia, an elaborate domed aedicula frames the detailed jeweled cross and its stepped base. At Poreč, by contrast, the simple cross, surmounting a hill, is set against a star-filled background.

Finally, certain motifs or parts of designs at Poreč may be said to have counterparts at H. Sophia. In sets 4/18 at Poreč, dolphins are arranged around a central roundel, while in set 6/16 cornucopias flank a trident. In the closest counterpart at H. Sophia, a group of two dolphins flanking a trident frames a central roundel (two panels on the west wall) and a central rectangle (ground-level pier).[72]

[69] See Dumbarton Oaks photograph SI–D–1.3(64). A small section of the register is visible at the right edge of fig. 6 in T. Mathews, *Byzantine Churches of Istanbul: A Photographic Survey* (University Park, Pa., 1977).

[70] See Dumbarton Oaks photographs SIII–G–4(39), SIII–G–31(39), SIII–G–3.2(39), and SIII–F–3(39), among others.

[71] For examples of the combination of these two motifs in floor mosaics and *opus sectile*, see Boyd, "Champlevé Reliefs," 317, and note 9 above.

[72] Underwood, "Notes," fig. 4; Kähler, *Hagia Sophia*, pl. 83; and Lethaby and Swainson, *Sancta Sophia*, fig. 48.

There is no close correspondence between the dolphins and tridents at the Eufrasiana and those at H. Sophia. At the Eufrasiana, both the dolphins and tridents are probably spoils. They are very simply executed and never used together. The dolphins, strictly speaking, are low-relief sculpture and not true *opus sectile*. At H. Sophia, on the other hand, the dolphins and tridents are crafted as a unit with complex detailing using several marbles. In sum, the general verisimilitude often noted between the *sectile* work at the Eufrasiana and H. Sophia, which results from a common reliance upon designs and motifs that had a wide currency in art of the period, appears to be somewhat superficial.

There is yet another, crucial difference between the *opus sectile* work in the two churches. The *sectile* work at H. Sophia clearly relies on different factors for visual interest than does that at the Eufrasiana. Most of the main panels at H. Sophia utilize a minimum of materials and are often closer to low-relief sculpture than to traditional *opus sectile*. The designs on these panels are usually built up in relief.[73] Often only two marbles are used, red and green porphyry, for example. Another large group of panels, primarily border units depicting rinceaux, canthari, crosses, etc., depend on high-contrast, linear designs for their effect.[74] In these, the individual motifs—birds, vines—are set into a plain, dark-colored marble background by means of thin lines, themselves consisting of strips of white marble or a dolomite-like rock.[75] The cross panel on the west wall also relies on a contrast between white and dark or black materials. Finally, many designs on the main panels at H. Sophia are composed of a few relatively simple geometric shapes and then repeated with only minor variations. The exceptions, for example, the cross or dolphin panels on the west wall, are few.

The panels at Poreč differ on every point. At the Eufrasiana, the emphasis is on a proliferation of materials, colors, and textures. Few panels are predominately one color or material; most use a wide range of materials and colors. Especially in sets 1/21, 4/18, 8/14, and 9/13, shifts in material/color distinguish each separate design component from its neighbor. Relief, such a major feature at H. Sophia, plays no comparable role at Poreč. Although occasional elements are carved in relief, such as

dolphins and capitals, the panels themselves are planar. Instead, visual interest in the Eufrasiana *sectile* work relies on the use of a great range of colors and materials, particularly the glasses and mother-of-pearl, in numerous designs. As a rule, the Poreč designs are more original, intricate, and varied than those at H. Sophia. Sets 1/21, 4/18, and 6/16, for example, each exhibit several designs within designs, several minor focal points. Sets 4/18, 6/16, and 9/13 offer extremely unusual, original compositions. In terms of style, therefore, the *opus sectile* panels at Poreč contrast sharply with those at H. Sophia.

Now, to evaluate these relationships. The designs at the Eufrasiana do find some parallels in those at H. Sophia. Similarly, there appears to have been a connection between the workshops at Poreč and Ravenna; this can be deduced on the basis of similarities in the disposition and the occurrence of identical interlocking square motifs in the upper register of each set. It must be remembered, however, that only three major examples of *opus sectile* decoration from the sixth century are substantially preserved in situ. True, they are contemporary, built within a fifteen- or twenty-year span, and collectively they form a considerable block of the surviving Justinianic monuments. It is, therefore, tempting to see in the parallels evidence of one workshop enterprise. Given only three points, however, it is dangerous to be dogmatic about the relationships between them. One wonders whether the fact that the designs at Poreč resemble those at H. Sophia necessarily signifies a derivative relationship. Likewise, who is to say that features shared by the Eufrasiana and S. Vitale appeared in those two examples alone? How would the picture change if Archbishop Maximian's S. Stefano in Ravenna or his S. Maria Formosa in Pula had survived?[76]

It is all the more fortunate, then, that the Poreč inlay was not considered important enough to restore. An analysis of the individual panels provides clear evidence that, whatever the precise debt the Eufrasiana owed to contemporary projects, the panels were executed on the site by primarily local artisans who operated with a serious shortage of supplies. In order to show this, I shall discuss three

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[73] See, for example, Dumbarton Oaks photographs SIII–E–7(39), SIII–F–3(30), SIII–F–6(30), and SIII–F–7(39).

[74] Underwood, "Notes," figs. 7–8. See also Dumbarton Oaks photographs SIII–B–1(60) and SIII–C–1.2(32).

[75] Underwood, "Notes," 206.

[76] S. Maria Formosa once abounded in precious marbles; see P. Kandler, *Cenni al forestiero che visita Pola* (Trieste, 1845), 76 ff, which contains the text of a 17th-century description. Maximian is said to have procured building materials in Constantinople for his S. Stefano (549); see Deichmann, *Ravenna*, II.2, pp. 372–74; von Simson, *Sacred Fortress*, 14; and G. Cortesi, "Due basiliche ravennati del VI secolo," *CorsiRav* 30 (1983), 68 ff.

aspects of their production: workshop practices necessitated by material restrictions, the use of spoils, and the quality and individuality in design and planning.

There is ample evidence that many materials were in short supply and that these shortages affected workshop procedures. For example, large slabs of marble in stock seem rarely to have been the right size, forcing the marble workers to piece together from what was at hand. Panel set 5/17 provides an excellent example. In panel 17 the central disc measures 49 cm in diameter, while the closest available match, used in panel 5, was only 43 cm. Therefore a concentric ring of small pieces of porphyry was devised to make up the difference. Similar examples may be noted in sets 6/16, 7/15, 8/14, and 1/21 and in panel 9.

Material restrictions also disrupted symmetry, both with respect to parts within one panel and with respect to a set of panels. In set 1/21 the border around the central rectangle of red porphyry consists of circles and lozenges. Considering one circle and one lozenge as a unit, panel 1 counts six units per side border. In its twin, on the other hand, seven of these units constitute a side border. Symmetry was sacrificed also in 2/20 (top and bottom horizontal rectangles), in 3/19 (relative sizes of central discs), and in 11 (top and bottom decorative borders). One wonders if the mother-of-pearl and Proconnesian border in set 9/13 might have been limited to three sides of the panel by necessity rather than by choice.

A third characteristic is the substitution of one material for another. The outer borders of the panels are interesting in this regard. They are consistent only in their diversity. While the majority of the borders are pavonazzetto or giallo antico, a number of other, similarly colored marbles were used. It is hard to escape the conclusion that any neutrally colored marble was enlisted for use in the outer borders. In panel 3 the flamelike projections around the central disc are entirely giallo antico. In panel 19, the match to 3, however, several pieces of other, similar marbles were required to complete the picture. Most of the narrow borders of the panels, as noted, were made with a white plasterlike material. It seems likely that this material was a substitute for white or light-colored marbles.[77]

Some sections of the narrow white border in panel 2 actually are Proconnesian. There are also a number of substitutions in panel 4. Red porphyry is used in place of lime green glass in the bottom left interlocking square, and the giallo antico at the bottom is not repeated at the top. Finally, Proconnesian replaces alabaster in units 1 and 3 of panel 16.

A fourth practice reflecting a materials shortage is the use of one-of-a-kind materials, odd pieces and defective materials. For example, the columns in panel set 8/14 contain several marbles which appear nowhere else in the program. In the left column of panel 14 a flame-shaped piece of Proconnesian is used. Yet no other Proconnesian flame shapes are found in the rest of the *opus sectile*. Finally, the upper horizontal slab of green porphyry in panel 5 appears to be a defective piece. The surface is uneven, the crystals unclear, and the surface finish unpolished.

In addition to adopting compensatory measures which were probably closely related to supply of materials, the artisans also incorporated spoils. The so-called Alexandrian candelabra has already been discussed in this context (Figs. 14–16). A careful analysis of material, technique, and method of insertion, however, reveals that the panels made far more extensive use of spoils than has been recognized to date. The same rather strange cornucopia panel is particularly illuminating in this regard. The side panels and floret border are clearly spoils. As was discussed above, the floret strip was cut for insertion, thereby interrupting the pattern. This panel further illustrates three of the most consistent characteristics that define many of the spoils. First, a rapid succession of very narrow borders—2, 3, and 4 mm wide—executed in a variety of materials, outline large design elements. Second, the spoils exhibit extraordinarily fine and detailed workmanship, using precisely cut and measured pieces. Finally, the spoils consist of alabaster, ivory, rose stone, white stone (sandstone?), paste, and certain types of glass, none of which appear in the sixth-century inlay. On the basis of these three characteristics, the entire central band of the upper register can also be identified as a spoil. Odd spoils were also used in a piecemeal fashion, as in the borders of set 5/17 or the low-relief pictorial elements in giallo antico, such as the pairs of dolphins (4/18) and capitals (8/14).

One might suspect, based on the evidence of the

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[77] At H. Sophia, a dolomite-like stone was used; see Underwood, "Notes," 206. An unidentified "white stone" was excavated at H. Polyeuktos in Istanbul. It was used there in a large variety of shapes. R. M. Harrison informed me that it fits the description of the white plasterlike material at the Eufrasiana.

At S. Vitale, if the restoration can be trusted, a light-colored marble (giallo antico?) was used.

interlocking square motif and on general proximity, that Poreč received many of its materials from Ravenna. There are good reasons, however, to look much closer to home. A longstanding tradition which held that Eufrasius garnered some of the materials from lavishly decorated Roman temples in Poreč was confirmed by archeologists in the late nineteenth century.[78] Excavations in 1897 demonstrated that the "Great Temple," reputed to have been one of the largest in Istria, had been richly decorated. What little survives of this magnificence today sits in the center of a tiny park at the western tip of the peninsula, not far from the cathedral. The cella had been paved with porphyry and serpentine (green porphyry) and the walls reveted with marble, onyx, and enamels "di vaghissime tinte disposte a bei disegni geometrici finissimamente lavorati."[79] Pogatschnig, who worked with the excavated material, suggested that a number of materials in the cathedral had come from the temple, including the candelabra in panel set 6/16, the "finissimamente" worked areas of the upper register, and the large discs of porphyry used in the centers of the designs.[80] The smaller Temple of Neptune, located to the north of the "Great Temple," was excavated at about the same time. The cornucopia and trident motifs unearthed there, wrote Pogatschnig, had been clumsily copied by the artists of the *opus sectile*. Surely he had in mind the cornucopias in set 6/16. When modern buildings annexed to the remains of the "Great Temple" were

demolished in 1908, more slabs of porphyry, "verde antico," and other marbles were excavated.[81] Although the finds from those excavations unfortunately were never fully published and have long since disappeared, it is not difficult to associate with them the various spoils used in the cornucopia panels as well as in the upper register. One wonders, in fact, whether additional materials were procured in the same manner. The interior columns of the "Great Temple," fragments of which may be seen at the site today, were made of red Veronese marble. It is entirely possible that the discs of this same marble used in panel set 8/14 and the apse pavement came from the temple columns.[82]

The practice of reusing materials from Roman buildings was quite common in the Early Christian period. Indeed, it appears to have been a standard building practice. In his *Life of Porphyry* Mark the Deacon described such a practice in his account of the building of the cathedral of Gaza (402–7) at the site of a former temple to Zeus Marnas. "When the ashes had been dug out and all the abominations removed, the holy bishop ordered that the remaining debris from the marble revetment of the Marneion—these, they said, were sacred and pertained to a place into which access was forbidden, especially to women—would be used for paving the open space in front of the church so that they might be trodden on not only by men, but also by women, and dogs, and pigs, and cattle."[83]

A more practical attitude toward acquiring spoils was displayed in a number of letters written by Cassiodorus for King Theodoric in Ravenna. In one of these, Theodoric informs officials in a different locality: "We wish to build new edifices without despoiling the old. But we are informed that in your municipality there are blocks of masonry and columns formerly belonging to some building now lying absolutely useless and unhonored. If it be so, send these slabs of marble and columns by all means to Ravenna, that they may again be made beautiful and take their place in building there."[84]

Finally—and this is the third aspect of production—in terms of planning, execution, and quality the Poreč panels offer a consistently independent profile. The availability of spoils and of other material resources frequently dictated planning and

[78]See, for example, Petronio's 17th-century account in *Memorie sacre e profane dell'Istria*, ed. G. Borri (Trieste, 1968), 331: "che spoliati li Templi a fatto de gl'Idoli de' Romani, delle Colonne e delle pietre più rare, le transportasse in queste nove fabriche." Richard Pococke, who traveled throughout Europe between 1733 and 1741, wrote in *A description of the East and some other countries*, II.1 (London, 1745), 263: "Parenzo was famous for a temple of Neptune . . . It is said that Otho the emperor of Germany built the cathedral with the materials of it, in which there are curious mosaic works and that which represents tridents and dolphins may be part of the ancient temple." On the Poreč temples, see A. Amoroso, "Parenzo—templi romani," *AttiIstr* 24 (1908), 191–204; A. Pogatschnig, "Il tempio romano maggiore in Parenzo," *AttiIstr* 38 (1926), 1–30.

[79]See Pogatschnig, "Parenzo dalle origini sino all'imperatore Giustiniano," *AttiIstr* 26 (1910), 14 ff and A. Šonje, *Poreč: An Historical Description* (Poreč, 1970).

[80]Pogatschnig also observed that the interlocking squares in panel set 4/18 were a "coarse Eufrasian imitation"; evidently he believed that the interlocking square motif came from the temple. The exact relationship between the six interlocking squares at the Eufrasiana and the eight at S. Vitale is a puzzle. The interlocking squares at the Eufrasiana are closely related to the other spoils in the panels, spoils which appear to have come from a local temple. At the same time, the fact that S. Vitale used more of these panels and that Ravenna was in general a source of materials might seem to suggest Ravenna as their source.

[81]Amoroso, "Parenzo—templi romani," 192.

[82]No red Veronese is used in the apse panels at S. Vitale.

[83]Mango, *Art of the Byzantine Empire*, 31.

[84]*Variae epistolae*, Book III, Letter 9 to the "Possessores, Defensores and Curiales dwelling at Aestunae"; see T. Hodgkin, *The Letters of Cassiodorus* (London, 1886), 202. Note similar letters: nos. 49 in Book III, 9 in Book V, and 8 in Book X.

design choices. For example, the interlocking square motif in the upper register inspired a much generalized version, repeated four times around the central roundel in set 4/18. The floret border in panel set 6/16 may have prompted the similar background for panel 11. The design in panel set 6/16 was clearly oriented around spoils. The same may be true for panel set 8/14, where the low-relief capitals in giallo antico may have inspired the image of an architectural niche. Also characteristic of the Poreč panels is their clumsy execution. A comparison of the handling of the narrow white borders, a hallmark *opus sectile* technique, as it appears in the panels at S. Vitale or the fifth-century work at the Orthodox Baptistery in Ravenna, with the handling of similar borders at the Eufrasiana illustrates the difference in quality. In the former, the graceful lines create designs within fields of colored marble and highlight major features as well. At the Eufrasiana, such borders are made from a plasterlike substance, not marble, and they simply outline large, bold geometric shapes. What the Poreč panels gain in inventiveness, they lose in subtlety. Third, and most striking, many of the designs at the Eufrasiana are remarkably original. The tradition of *opus sectile*, as a rule, fostered repetition.

In summary, then, it would appear that the workshop responsible for the *opus sectile* at Poreč was largely a local operation. The demonstrated lack of materials suggests a workshop with a minimum of resources. The use of spoils from a neighboring temple argues for an on-site project. And, finally, the inventive if unsophisticated designs, many of which find no corollary in Ravenna or Constantinople, lead to the conclusion that the Eufrasiana panels were the creation of basically local artisans, clever workers whose ingenuity in the assimilation of spoils, fragments, and odd lots produced singularly imaginative revetment.

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